

THE
HARDY
FLOWER
BOOK

E. H. JENKINS



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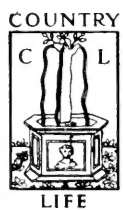
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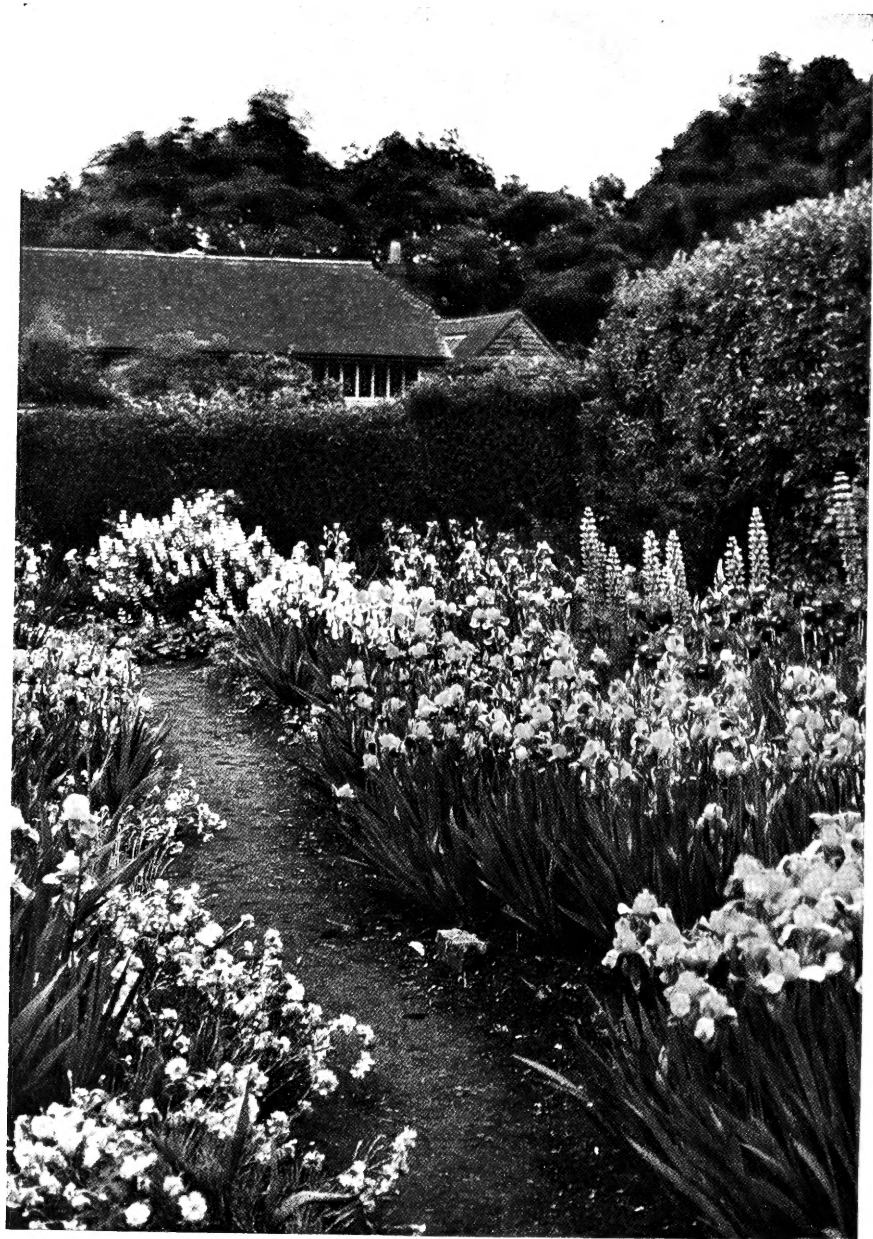
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A JUNE BORDER OF FLAG IRISES AND LUPINES

THE HARDY FLOWER BOOK

By
E. H. JENKINS

Edited by
F. W. HARVEY

SECOND EDITION

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PREFACE

THE increasing interest that has been taken in the cultivation of hardy herbaceous flowers during the last few years has been phenomenal. Never have they been so highly esteemed as they are at the present day. This fact is due to many causes, the chief of which, undoubtedly, is the great improvements that have been brought about by our leading nurserymen and amateurs.

It is only when a comparison is made between the *Delphinium*, *Pæony*, *Phlox* and *Pyrethrum* of to-day with those in general cultivation ten or fifteen years ago that one realises the extraordinary improvements that have been made, and the effects these have had on gardening not only in this, but in other countries. The increased interest in these plants has naturally called forth a number of books professedly dealing with their cultivation. Of these few are good, many indifferent, and a number bad. The chief faults of the majority are that they are indefinite or impractical. In these days there is a noticeable tendency to strain after journalistic effect and to ignore, or pleasantly evade, just those very points upon which the average amateur who sets out to cultivate these flowers is seeking for information. We believe that it is not impossible to successfully combine the two, but we even more firmly believe that sound, practical information is the all-important object to keep in mind, and the contents of this book as well as the illustrations have been prepared with this end continually in view. Mr. Jenkins is a recognised authority on all kinds of hardy plants, having devoted his whole life to the study of their requirements. For many years he has been a member of the Floral Committee of the Royal Horticultural Society, has lectured on hardy flowers in all parts of the country, and

is consulted about hardy plants by both nurserymen and amateurs. Any of the methods advocated in this book, therefore, may be adopted with the fullest confidence. For the sake of convenience and handy reference, the volume has been divided into three distinct sections. Part I. deals with the principal uses of hardy flowers in the garden, and includes special detailed particulars of the more important families, such as Phloxes, Delphiniums and Pyrethrums, as well as plans showing the proper grouping of plants for borders. Part II. consists of an alphabetical list of all hardy herbaceous flowers that are worth growing. Here will be found in concise form all the essential points that are necessary for their cultivation—the best varieties; the month of flowering; soils; aspect required; and propagation hints; particulars which in so many books are either ignored or evaded. Part III. consists of tabulated lists of hardy plants for all conceivable purposes, giving, in every case, their colour, height, time of flowering, and other useful details. An important feature of this section of the book is the lists of plants that flower in all seasons—spring, summer, autumn and winter. Many owners of gardens are able to spend only a few weeks of one or other seasons of the year among their flowers, and, naturally, wish the garden to appear at its best during those weeks. These lists, in conjunction with the information given in the other sections of the book, should enable this object to be achieved without difficulty.

It is confidently claimed that this little book is a complete and trustworthy guide to all those who are desirous of adding to their knowledge of the right methods of planting and cultivating hardy flowers, and thereby enhancing the attractiveness and beauty of their gardens.

F. W. HARVEY

PART I.

CHAPTER I.

PREPARATION OF THE SOIL.

IN the cultivation of hardy flowers a matter of the highest importance is the tilling of the soil. This applies with equal truth to every class, whether shrub, herbaceous perennial, or biennial, and in the main to the entire range of annuals also. But, despite this truism, it is a matter too often neglected, or the work at least only indifferently performed. If an amateur specialises in Roses or Sweet Peas, the almost invariable rule is to so make a beginning that success at the very outset would appear to be more than half assured. The soil is so thoroughly trenched, manure and bone meal and other things so incorporated, that the operator has the supreme satisfaction of knowing that he is doing the thing rightly and well, and, that being so, he is entitled to look for a fair return for his labours. Generally, he has the even more supreme satisfaction of not being disappointed, and the full measure of his success is the reward of his enthusiasm, of his labour of love.

In his first dealings with the hardy herbaceous flower border the amateur is not always so enthusiastic as he is in the case of Roses or Sweet Peas, but the former demand it as much, and repay it as fully as the latter. That being so, I desire on the very threshold of this little volume to drive home the point, to endeavour to get my readers fully to comprehend the importance of thoroughness at the outset. All interested should, therefore, regard the preparation of the soil as a first principle, something which cannot be ignored, something which cannot be gainsaid with impunity. Those who have omitted this important work in the past—and from long experience and touch with horticultural journalism I know the number is not a small one—have many times repented of their sin, and have been freely forgiven by all, probably, save those unoffending

victims, the plants. The greater burden of punishment in such cases falls, usually and happily, in the right place, the indifferent display, the sullenness of certain plants, the death of others, and, over all, an enfeebled growth, insignificant and poor, uncharacteristic flowers being some of the outward and visible signs of this neglect of the preparation of the soil—a first principle in the case. In any case the old adage “well done is always done” must apply, for once a border is well prepared the one great obstacle of non-success is removed. Conversely, “badly done is never done,” and the ill-prepared border is a source of dissatisfaction and an eyesore for long periods of time. Moreover, such border has, sooner or later, to submit to preparation, and, naturally, the deferred work is more costly and less expeditiously performed than if undertaken at first. Obviously then, from the standpoints of economy and insured success, the due preparation of the soil must be regarded as

A First Step.—That being so, we may now consider the situation more closely. For treatment, an entirely new piece of ground exists in the mind’s eye. It may be a portion of a shrubby border, a poaching on the preserves of the kitchen garden proper, or, what often happens, a piece of pastureland is being taken into the garden and awaits treatment. In each of these a different set of conditions arises. Let us take them as we find them. The shrubby border example will invariably be found in a poor impoverished state owing to long tenure of trees and voracious shrubs. The first thing to do in such a case would be to rid the soil of every vestige of root and root fibre, grubbing them out, and making a bonfire of the materials on the spot, together with any rubbish that might be at hand. The ashes from such fires are rich in ammonia, potash and other salts, and by strewing them evenly over the surface the soil would be receiving, if in a new form, some of the essentials of plant life long since removed. Such a border will require the deepest trenching and heaviest manuring to get it into good heart. Should the soil be very light

or sandy, cow manure, whether comparatively fresh or well decomposed, will be the best—best, not for high manurial value so much as for its cool, long enduring, moisture-retaining properties. These sandy soils, too, are usually deficient in lime; hence that essential to most vegetable life should be supplied. Even more valuable than lime would be a six-inch surface dressing of lias clay, and which, when broken down by frost and rain, should be thoroughly incorporated with the soil. Such a dressing of clay would, in a single year, more than restore the soil to its original fertility, while making a medium for plant cultivation bordering on the ideal. Heavy or retentive soils would, in addition to trenching, require sand, grit, leaf soil, and light manure to render them porous and open. The drainage, too, should be made perfect. A more efficient aeration of the whole mass of soil would be secured by throwing it roughly in high ridges for the winter, an operation which at once insures a more complete drainage, while exposing its maximum to the re-vitalising influences of frost and air.

The Kitchen Border Soil in the ordinary way will be found rich in plant foods, and possibly a thorough trenching, in conjunction with manuring and liming, will be all sufficient. It might be added here that, to ordinary soils, lime might be applied at the rate of one bushel to each rod of ground, and to over-rich soils, those virtually suffering from manure sickness, twice that amount might be advantageously applied. The chief function of lime is that it brings into action the insoluble reserves of nitrogen and potash contained in the soil, rendering them available as plant food. It also constitutes a corrective to soil of much richness by neutralising the injurious acids present. In all cases cow-manure is that recommended for light sandy or stony soils, and ordinary stable dung for heavy soils.

Newly Embraced Pasture Land may require special treatment. Of primary importance here would be to determine the presence or absence of wireworm, a terrible pest so far as Lilies, Irises, and many other plants are concerned. Should the land be free, trenching and

manuring should proceed in the ordinary way. Should its presence be detected, it will be best to take a four-inch deep sod off first—the “top-spit”—and stack it in a place apart. To turn this wireworm infested sod into the bottom of the trench would constitute a fatal error, one that might cost pounds to rectify, and even then not before many valuable plants had been lost.

Trenching and Manuring.—Trenching is but another name for double-digging, and consists in the removal of soil two spits deep, with the consequent crumbs. Its special office is to deepen and improve the soil, to render available a greater depth of material, aerated and enriched to sustain plant life. Soils vary materially in depth as well as quality, and, in the case of shallow soils over gravel, trenching as ordinarily understood is neither practicable nor possible. On the other hand, several feet deep of good soil may exist, and in such as these the trenching should be of the best. The method of trenching is to mark off a strip of ground two feet or so in width, and excavate it to a similar depth. If borders on either side of a main walk are being treated, the soil will need to be transferred only to the opposite side of the border. If a one-sided border is being dealt with it will be best, unless the border is wide and permits of being worked in two longitudinal sections, to transfer the soil to the other extreme. With the first trench open, a width equal to the first should be marked off, turning the top soil into the bottom and bringing the second spit to the top. A heavy layer of manure should be inserted between these two layers of soil. In the case of new or impoverished soil heavy manure dressings should also be given at the surface. The work of trenching should be done in early autumn, where possible, so that the ameliorating effects of frost, rain and air can exert their fullest influence upon the soil.

A Final Step in this important matter of soil preparation should be early spring forking or digging. Prior to this, heavy and retentive clay soils will be much improved by a surface dressing of lime, 1lb. to the square yard, which, coagulating the particles of the soil, permits

a freer passage of water through the whole mass, thereby ensuring a greater degree of warmth and more complete drainage than existed before. The same class of soils can be lightened and otherwise improved and enriched by the addition of ashes from garden rubbish fires, and, whilst the soil is still unoccupied, anything that can be done in this direction should be done. Clay soils, generally, are usually unworkable during times of wetness, and if trodden only become pasty and unsuited to plant growth. Hence the need of surface dressings—lime, soot, wood ashes or the like—being given during frosty weather. Advantage, too, should be taken of dry, windy weather for the same work.

In extreme instances of clay soils, and where the area is a large one, burning has been resorted to with excellent results; that is, making a fire and treating the worst of the material as if making a ballast fire. Such work, however, is not possible in restricted areas, though its effect in other circumstances is almost electrical. Soils so treated are benefited for all time. They are drained, warmed and enriched, and much water being taken out of them by the process of digging and burning, they are rendered almost immune from one of the worst evils of all clay soils, viz., summer contraction and cracking.

Light soils are much more tractable and easily worked. They do not usually suffer from treading after wet, and, as a rule, are available at any time. They also possess other advantages. Plants take to them more quickly than they do to clay soils. This is chiefly due to the existing warmth created by more complete drainage. At the same time they are more quickly exhausted than heavy soils and require more frequent enriching, and they are available for planting at almost any season. Notwithstanding these advantages, it will be well to give them careful treatment at the start. I have thought it well to refer to the treatment of the soil in some detail, so much evidence having come under my notice of the consequent ill-effects—loss of plants and much disappointment—when the hardy plant border has received but little or no preparation.

CHAPTER II.

GENERAL CULTIVATION OF HARDY FLOWERS.
PLANTING, STAKING, TYING.

When to Plant.—Of primary importance here is the question of planting in season and with reason. Let it be clearly understood what is meant by this. Herbaceous perennials, like all other subjects, have their own seasons for starting, both with root-activity and stem-growth. Some, too, are almost perpetual in their rooting, continuing to produce root fibres during a greater part of the year. The border Phloxes are an instance of this. Others, however, such as Iris, Pæony, and the Christmas Rose, produce root-fibres at fixed intervals of time. The first-named set, those that might be called the perpetual-rooting class, may, if convenient, be planted with impunity over a considerable period. The others—and Pæonies and Christmas Roses more particularly—cannot be so treated, or, if so treated, will resent it in an unmistakable manner. This is due to a variety of circumstances, though chiefly to the fact that only two sets of roots are produced by these plants each year, and the loss of the primary set—the basal roots of autumn—which also entails the loss of the secondary set, appearing normally in spring, the plant is thrown on its own resources for probably a whole year. This in turn gives rise to a general weakness or debility of the whole plant, and recovery is very slow. More of this anon.

Autumn and Spring Planting.—In the main, however, that large class of plants which figure under the general heading of hardy herbaceous perennials are of so vigorous and enduring a nature that they submit to planting either in autumn or in spring. A principle involved in the latter, however, is that the work be timely done, so that the subject has the dual advantage

of becoming established before dry weather sets in and of making a fair display even in the first year. In a general way the majority transplant quite well just prior to new growth appearing. Larkspurs, Irises, Sun-flowers, Pyrethrums, and many more are good examples, though in light loamy or sandy soils these may also be safely planted at other times. The Herbaceous Phloxes, because of their continuous rooting and the loss of root-fibre and stamina that late planting involves, I prefer to plant in early autumn. In this way the plants obtain a good hold of their new stations before the arrival of spring.

The Fallacy of the Big Clump.—Let me emphasise this, because to the beginner there is no more fatal error. The big clump of Pyrethrum, Iris, Pæony, Trollius, or what you will, is a delusion and a snare. The youthful plant is capable of much better work. Why? Because its every shoot and bud has opportunities for developing, whilst those of the big clump are hopelessly hemmed in on every side. A big clump of Pyrethrum may have within its half dozen inches five or six dozen shoots, only a tithe of which are free. The remainder are virtually out of court—out of action. A solitary crown of one of these might appear a diminutive scrap to plant, but if well rooted, it will, when established, provide the finest display—a whole sheaf of blossoms. The specialist of the perpetual-flowering Carnation or the Chrysanthemum obtains his best results, not by employing the stools of worn-out, or, at least, much exhausted, stock, but from young plants, periodically increased—refreshed, renewed, re-invigorated. Is not the lesson an obvious one for us? Is it too much trouble to perpetuate that youthfulness in the hardy plant border by the same or similar means? We must, indeed, do so if our borders are to yield the best they are capable of giving. The day of neglect or of indifference of the herbaceous border is of the past. It is not sufficient to plant, and leave the rest to chance. We must cultivate, and that perpetually, and the harvest we shall reap will be a harvest of flowers, an enduring

feast of weeks, or it may be months—reaping some thirty, some sixty, some a hundredfold—just in proportion as our labour has been assiduous and enthusiastic.



Fig. 1.—A PLANT BADLY STAKED.

Staking and Tying are small matters of great importance. They show at once the taste, intelligence, or indifference of the owner. Badly-tied specimens rob the plants of all beauty and charm, and bundle-tied, beesom-like examples are the ugliest of all. Every plant in Nature has a certain more or less well defined contour

of its own ; the aim of the gardener should be to imitate it as nearly as possible. The bundle-tied specimen (Fig. 1) not only destroys all good effect, but, by excluding light and air, causes the innermost branches to quickly



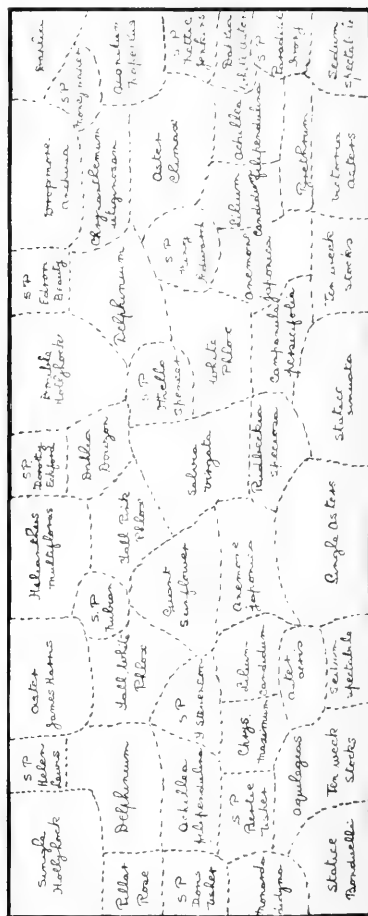
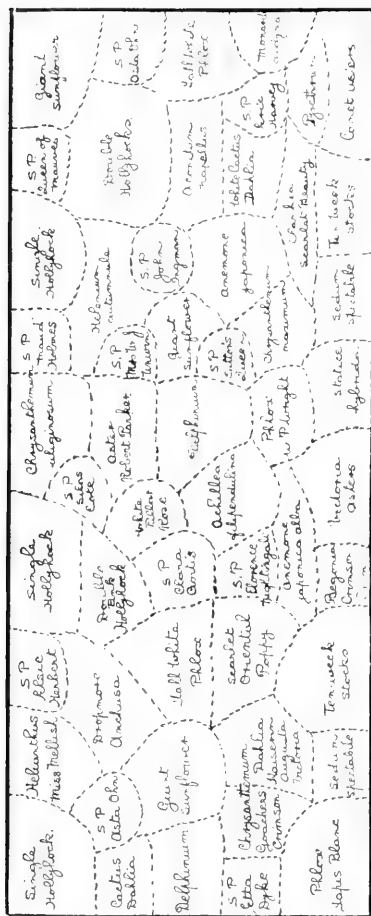
*Fig. 2.—THE SAME PLANT PROPERLY
STAKED.*

decay, and wretched flowers result. In gardens of note, the proper staking of plants receives seasonable as well as intelligent treatment. That is to say, the habit of the plant is anticipated, and a good natural result ensues (Fig. 2). This is done, say, in the case of certain Michaelmas Daisies, by placing several stakes to each

specimen during the early stages of growth, so that with the latter completed, the stakes are quite or nearly obscured from view. A solitary stake to a plant and a tie amidsips is wrong and bad—bad in any case, but inexpressibly so in the case of small growing subjects. In staking no stick need reach to a greater height than two-thirds that of the plant. For example, to *Dicentra* (*Dielytra*) *spectabilis*, or the Solomon's Seal, all the natural arching character of the flowering racemes should be preserved. To tie such as these to straight erect sticks robs the plants of all their natural grace. These plants, however, rarely require staking at all, and are cited merely to illustrate a point. Noble growing subjects like the *Kniphofias* (Red Hot Pokers), or *Lilium giganteum*, need never be staked. *Lilium Henryi* has a characteristic lean or bend of its own, and no thinking gardener will attempt to rob the plant of it. *Michaelmas* Daisies, of the *ericoides* or *diffusus* sets, require but little staking, though where it is done the top-spread of the plants should receive due consideration. For such as these it will be necessary to insert the sticks near to the root-stock of the plant, setting them at an outwardly reclining angle to suit the growth of the plant. A golden rule would be never to stake unless it is necessary. Staking should be resorted to in order to preserve, not to mar, beauty. Elegant habited plants—*e.g.*, *Heucheras* and *Columbines*—should seldom be staked; the play of the flowers consequent upon the prevailing breeze but adds to their many graces. Environment, however, may in certain instances render staking desirable, and particularly when the position is much exposed. Stakes, too, should be light and rendered as inconspicuous as possible.

Watering.—This, in the case of spring-planted examples, is a matter of importance, and again, for subjects approaching the flowering stage in times of drought. In all cases where necessary the work should be thoroughly done, a complete saturating of all the surrounding soil given from the spout of a can, and not dribbled on by means of a fine rose. In not a few gardens to-day,

standpipes and hose are to be found, though they are certainly not an unmixed blessing. Cold water driven with force on to a plant is bad ; it is infinitely worse when squirting is resorted to by the unthinking, and in never-ending quantity. In watering with hose pipe it is not necessary to direct the full force of the water at the middle of a plant. It is the soil that requires saturation, though the plant will be greatly refreshed by a shower bath at the end. Warmed water, *i.e.*, that exposed to air and light in open tanks, is best, and rain water best of all.



CHAPTER III.

HARDY FLOWERS FOR THE MIXED BORDER.

THE cultural routine to be observed here in no wise differs from that detailed in the previous chapter. A point of difference, however, is that in not a few gardens the mixed border is regarded as a sort of store-house for useful things for cutting, so that the beds of the flower garden proper be not interfered with. It is not, then, that the mixed border cannot be made as presentable as any other, but that in large gardens it constitutes a sort of reserve—a useful adjunct—to the whole. In other gardens, and these probably are in the majority, the mixed border is often a feature of the place, gay and beautiful with all sorts of flowers for many weeks on end. Such a border will of necessity contain its complement of annuals and biennials (Fig. 3), its rows of Roses and Carnations, with tufted Pansies near the front; its Dahlias or Cannas, and the pillared splendour of Climbing Roses or Clematises in the background, which, in not a few instances, may be used with excellent results.

To instance one that at the moment is in the mind's eye—such a border might begin its season with masses of Crocuses, Snowdrops and Dog's Tooth Violets near a margin already garnished by mossy Rockfoil, London Pride, and woolly-leaved Thyme (*T. lanuginosus*), with presently intervening masses of tufted Pansies, and anon Daffodils and Tulips galore, springing from the near-by tufts of Carnations or anticipating the splendour of the Roses only a few weeks since pruned. From thence, Pæony and Phlox, Sunflower and Larkspur, Dahlia and Canna, Gladiolus and Lily, Hollyhock, Michaelmas Daisies in variety, and Japanese Anemones might appear in large groups (Fig 4). Sweet Peas of necessity would enter into the display, for they are capable of playing an excellent part in such an arrangement.



Fig. 4.—A MIXED BORDER IN AUTUMN.



Fig. 5.—A MIXED BORDER WITH ANNUALS IN THE FOREGROUND.

From the spot where Daffodils and Tulips flowered in early spring, the Chinese Asters should rise for an autumn display when the fuller glory of the Roses had departed. There are, of course, many varieties and types, and the whole are welcome for their late and good flowering. Other good annuals should include Stocks, Rocket Larkspur, Nigella, Calliopsis, Chrysanthemum in variety, and many more (Fig. 5). The only things, indeed, that cannot be put into the richer soils of the mixed border with advantage are the dwarf Nasturtiums, which, running to leaf at the expense of flower, would probably disappoint. Where these are grown, let them appear in the poorest soils apart, for in these alone are they capable of displaying their fullest value. A chief point to bear in mind is a succession of flowers. For example, it is not desirable to have anything gaudy in flower with and near the Roses to mar their beauty. A glaucous carpet of Carnations and presently a few sheaves of the crimson flowers of the Clove would, of course, add a greater charm to white or cream coloured Roses ; or spreading sheets of white or golden-tufted Pansies might be there with equally good effect. White fragrant Stocks and crimson or scarlet Roses would be good company, too ; any arrangement, indeed, in which the twain, mirroring each other into a fuller life and beauty, would, as it were, be playing a dual part in the embellishing of the whole.

CHAPTER IV.

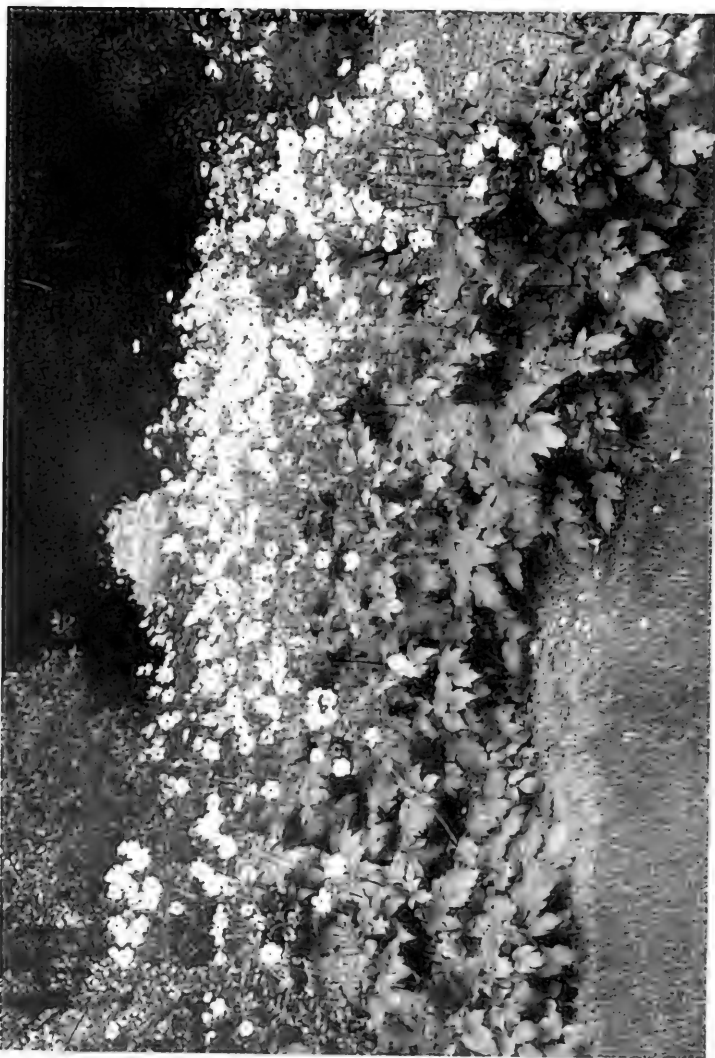
HARDY FLOWERS FOR THE SHRUBBERY
BORDER.

What to Do with the Shrub Border.--There is, of course, but one way of considering the Shrubbery Border proper, and that would be after once thoroughly preparing and planting it to let it almost severely alone, save for the destruction of weeds. We have in mind, however, hardy flowers in conjunction with the shrub border; hence, for present purposes, the idea of letting it alone must of necessity be modified. The one great danger to the shrub border is that of annual digging, and, of course, in thoughtless, unintelligent hands, of annual root-mutilation also, and that species of it more particularly that sets a plant back for a whole year after the work is done. Hence digging—and indiscriminate digging in particular—is a sort of curse. It is, of course, a hundredfold worse when carried on right to the base of a plant regardless of root spread. In the shrubbery border, where hardy flowers find place, there must perforce be digging of a kind, though usually it may be met by careful light forking amid the groups of plants. To delve here and there more or less deeply and to turn up tuft after tuft of root fibre is wrong—illogical to a degree—and he who would do it would not hesitate in turning up bulb or hardy perennial likewise. These are not fanciful pictures; it is done in private and public garden alike, and it ought not to be.

In thinking of the association of herbaceous plant and shrub, the overgrown plantings of Portugal and common Laurels beneath hungry rooting trees are dismissed as impossibles, for where Privet and Laurel eke out a bare existence, the chances for flowering plants are remote indeed. In other words, we want a place to garden in and not an unkempt jungle.

Plants for the Shrub Border.—The shrubbery part of our border would, therefore, be made up of Lilacs, Flowering Currants (*Ribes*), *Diervillas* or *Wiegels*, *Forsythia*, *Spiræa*, *Rosa rugosa*, *Choisya*, *Magnolia*, *Berberis*, and other things of leaf or flower beauty or interest. Amid these the lofty plumes of the Pampas Grass, or the spires of the nobler Red Hot Poker (*Kniphofia*) might be seen to advantage; or, in favoured places, the giant-stemmed *Arundo Donax* with good effect. A subject of sterling worth for such a place would be the pure white-flowered form of *Anemone Japonica*. This fine plant should be given a place apart, a flanking position near a belt of dark-leaved Holly or other evergreen, so that its distinctive leaf beauty, as well as its flowers, might be seen to advantage (Fig. 6). At another extreme of the border the pink-flowered *Anemone Queen Charlotte* might appear, while others might be planted should opportunity offer. A plant too rarely seen in such connection is the willow-leaved Sunflower (*Helianthus orgyalis*), and it is full of grace. Such Lilies as *pardalinum*, *testaceum*, *candidum*, *Henryi*, *croceum*, *tigrinum*, *umbellatum*, and *speciosum* should also find place, and, not less so, the Himalayan *Lilium giganteum*.

Bold herbaceous subjects like *Helenium*, *Delphinium*, Sunflower, *Iris orientalis*, *Phloxes*, and *Michaelmas Daisies* might also play a part, the pyramidal spires of the Chimney *Campanula*, in blue and white, sharing in the display. There will be room, too, for the taller growing of the herbaceous *Pæonies*, for flag and other Irises, for Columbine, Solomon's Seal, *Astilbe* and many more of a strong-growing character. As yet nothing has been said about the margin, though this also must bear some degree of proportion, some sort of relation to the whole. Hence, here we would confine our plantings to *Aucuba japonica vera*, to *Skimmias*, Ghent Azaleas, to occasional groups of *Yuccas* and such plants, with so distinctive a subject as *Saxifraga cordifolia purpurea* or one of its kin at the immediate front. Such a border, if cool and moist or in shade, might well contain its



*Fig. 6.—JAPANESE ANEMONES EFFECTIVELY GROUPED IN FRONT OF EVERGREENS
IN THE SHRUB BORDER.*

complement of Lenten Roses, and the fine-leaved *Helleborus corsicus*. We have also a happy recollection of one almost carpeted by Lily of the Valley, and another which, in spring-time, was clothed with Primroses, and later May-flowering Poeticus Narcissi. Needless to say, in such cases neither spade nor digging was permitted. The necessary weeding, light forking or hoeing, mulching with decayed leaf soil and manure, were the chief attentions given to a border rich and varied in plant life and full of beauty during many months of the year.

CHAPTER V.

HARDY PLANTS FOR THE WILD GARDEN.

If the Wild Garden is less necessary to the garden proper than the mixed border or the shrubbery border, it can vie with either, and, indeed, surpass them in its restfulness and charm. It is, of course, not a subject for the town or suburban dweller, and the feeble and often formal attempts that we see occasionally on the outskirts of public parks but demonstrate how imperfectly this phase of gardening is understood even to-day. It would almost appear, too, that many gardeners fail to appreciate it and have no sympathy with it, and the twain may be born of the lack of knowledge to guide them aright. Wild gardening, however, in its truest sense—the gardening of copse and pasture, woodland and glen, waterside and hedgerow—is, without doubt, one of the most fascinating of the many phases of outdoor gardening, a gardening which brings us into touch with Nature at every turn, and which, indeed, rightly conceived, *is* Nature itself. Its very informality and absence of trimness of necessity carries it away from the more formal arrangements of flower bed and border, and we find in it a restfulness and repose as refreshing as they are real. Once free of the more formal garden, with its precision and monotony, we are at liberty to make beautiful its rougher parts, and in such a way that they will not be least among the many attractions a good garden may contain. On all large estates there is, fortunately, room for all, and the wealth of flower beauty of this and other countries deserves well at our hands. In not a few instances

The Cool Moist Woodland will be found congenial to a large number of plants, and, bereft of the useless savagery of bramble and other things, should be made much of. There should, however, be no attempt at an absolute clearance. We want the wild garden to

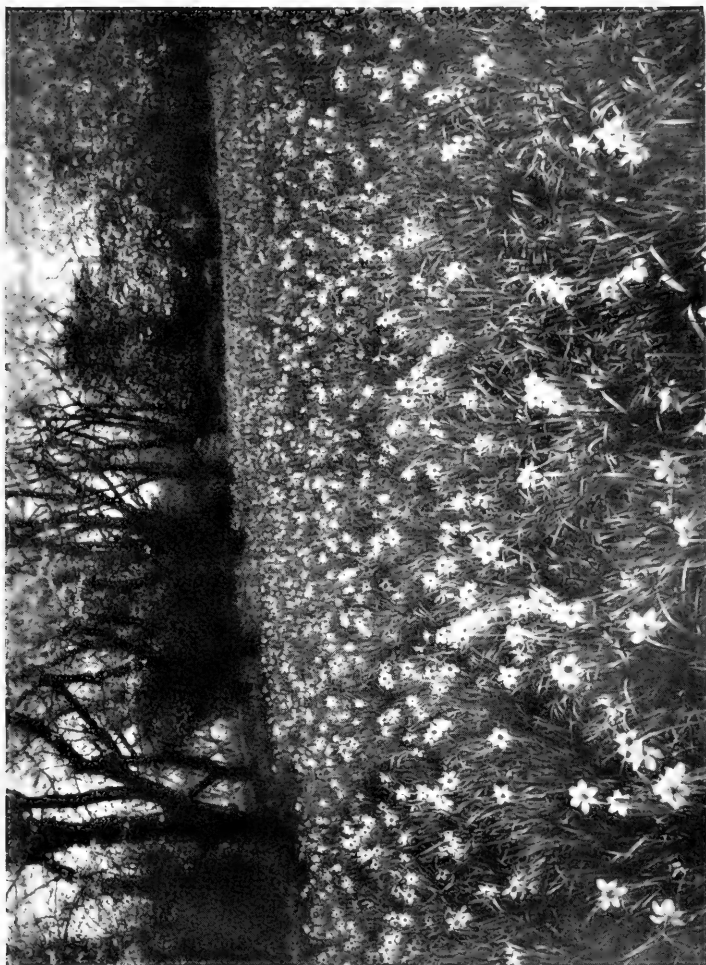


Fig. 7.—*DAFFODILS NATURALISED IN THE WOODLAND.*

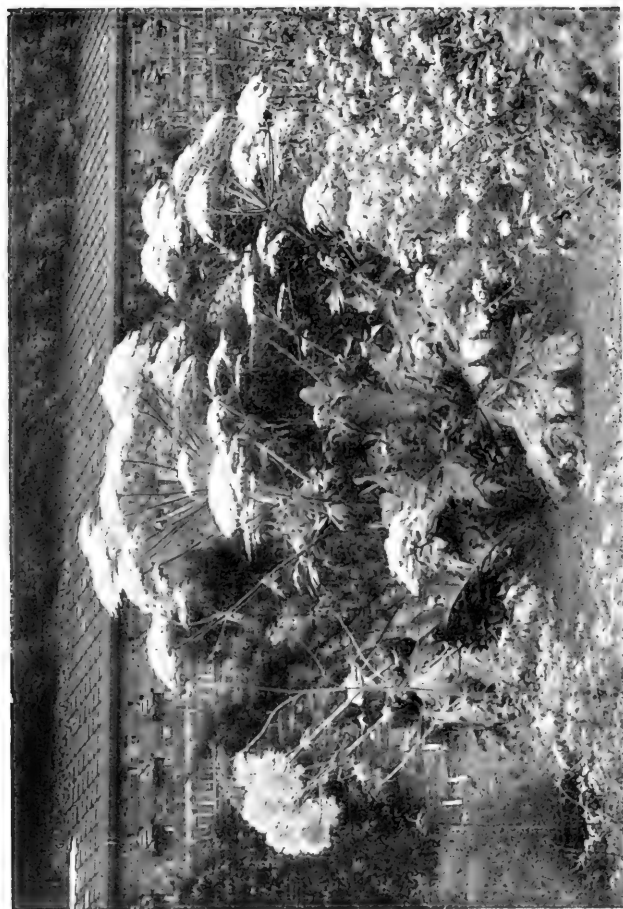


Fig. 8.—A GIANT COW-PARSNIP, *HERACLEUM MANTEGAZZIANUM*.

represent that "art which doth mend Nature, change it rather"; hence only the more savage, useless types should be removed. Should the soil be light, peaty or sandy, we shall find it a veritable home for Lily, Rhododendron, and Wild Rose; while as carpeters we shall have the pleasure of seeing Gaultheria, Epigæa, Shortia and other true woodland plants growing freely and luxuriantly. It is, indeed, their home, and they appreciate it accordingly. The hardy deciduous Azaleas will revel in such a place, affording their flower beauty in June and leaf colouring in September. Pernettyas will grow and flourish like weeds; the bracken will put on its richest colouring, and the graceful willow-leaved Gentian (*G. asclepiadea*) will be among the happiest of them all, seeding and re-appearing in its hundreds.

Where Heavier Soils Obtain, the Daffodil will doubtless hold pride of place, assuming a vigour of which the garden proper knows too little. Moreover, the plant appears capable of going on indefinitely, growing, flowering and increasing, without apparently exhausting itself or the surrounding soil. Most Daffodils, too, revel in cool moist bottoms, and to some this condition would appear well nigh essential, seeing how they grow and outlive those cultivated in richer soils elsewhere. All the star Narcissi are peculiarly happy in moist woodland, and a few of the waist-high giants of the race demonstrate this unmistakably (Fig. 7). Even the comparatively fastidious and short-lived Tenby kind is often good, while such as princeps, Queen of Spain, Emperor, Sir Watkin, maximus, and ornatus, to name a few distinctive and varying types, are obviously content with their lot. Primroses, too, and Wood Hyacinths are delightful in their way, and not less so the Wood Anemones, which, in blue and white, are capable of giving pretty effects here and there. The Grecian and Apennine Anemones require a sunnier slope, or at least a more open spot, to show their precious beauty to perfection.

In the Rougher Places, Foxglove and Evening Primrose will of necessity play a part, with Loosetrife and



FIG. 9.—SNOWDROPS IN A WOODLAND CLEARING.

Willow herb. For plants of bolder habit we must needs turn to the Meadow-sweets, the giant Groundsels, the Cow-Parsnip (*Heracleum*) (Fig. 8), tall Meadow Rues, *Polygonum cuspidatum*, and *Sachalinense*, *Bocconia cordata* and the like. In a few places the brilliant *Lobelia cardinalis* might appear. Anon the Michaelmas Daisies may stretch into the woodland in fleecy or hazy clouds of bluey-white, broken here and there after the manner of clouds, with overhead garlands of Honey-suckle or Virgin's Bower. On the confines of Nut-woods or plantations the Winter Aconite, Snowdrops and Crocuses (Fig. 9) might appear while the trees were yet in their winter garb, with, by-and-by, chequered Fritillaries and Blue Bells. In planting, the clustering group at the foot of a tree, or presently an informal drift of Daffodil, Fritillary or Snowflake carelessly threading its way amid the grass will always create a pretty effect. Avoid continuity : the abrupt breaking-up of the planting affords rest and change. The Daffodil, Primrose, or Cowslip might fringe a woodland walk or drive, for a space, and then tumbling headlong, as it were, down a bank appear more beautiful than before. Rising ground seen from a corner or bend is a spot to be made much of with Daffodils; indeed, instances might be multiplied without end.

CHAPTER VI.

HARDY PLANTS FOR WATERSIDE
GARDENING.

IN but few instances, comparatively, has the garnishing of waterside or streamlet with suitable vegetation been successfully carried out. In all probability, judging by results, it has not been rightly understood. To some extent, the streamside has been made a dumping ground for all and sundry flowers that would not thrive elsewhere, or for the ever-increasing surplus of commoner things from the borders which would have been better reduced to ashes by the garden bonfire. To some extent, also, it has been neglected altogether; in others, rendered impossible by raised artificial margins, replicas in miniature of the fountain basins in Trafalgar Square. Some of the ugliest we have seen have, indeed, been so raised, and, by being brought into near proximity to the house—*where they are never required*—savour of nothing so much as their own artificiality and incongruity. Equally ugly, and unnatural, too, is that type of artificial pond which, figuring upon the lawn, has been so arranged that the water is on a level with the sward itself. The worst type, however, that we remember to have seen was so arranged that one side appeared on sloping ground, hence the pond margin was raised yard-high reservoir fashion to, we presume, everlastingly demonstrate its own incongruity and an entire absence of the fitness of things. The error was rendered more conspicuous by the peculiar flatness of the surrounding acres. Hence, the only useful purpose the erection could serve would be from a negative point of view.

The Object of Water.—In Nature the clear waters of the lake are as a mirror to the landscape around, and we see in them objects of interest and beauty that we see nowhere else. In Nature, too, water most usually

occurs in depressions in the land, there to serve an obvious purpose. Moreover, in large estates, water is never, or very rarely, in sight of the dwelling, and, further, is usually disposed amid suitable environment. Hence, in dealing with artificial water in the garden, if we cannot similarly place it, we had better exclude it altogether. There is, indeed, no reason for the presence of water in a position where tree, shrub or border group might render greater service or be in truer keeping with the surroundings. In one instance of which we have experience, the water was within a few yards of the house, a veritable duck-pond, as bad as any and as evil-smelling as the majority. Its load of scum was an eternal eyesore, and its owner was advised to partially fill it up and plant Japanese Irises, Bamboos and other things in the place. The only good way of dealing with artificial water within the limits of the garden proper is to so deeply excavate the pond area that provision could be made not only for the depression requisite for the water-basin, but for the more or less naturally sloping sides that such things should embrace. This, indeed, should constitute the keynote of all such work, a fundamental principle from which there should be no departing. The cemented portion of the sides—assuming cement is used at all, and it need not be where clay is good and abundant—should thinly shelf out to high-water mark, and in such a way that the banks may be grassed to the water's edge and practically obscure artificial work of any kind. This arrangement will afford the most pleasing and natural effects. Space forbids our entering into the fuller details of constructive work, which, following the guiding principle herein laid down, will be better in the hands of the good landscape gardener. An item of importance, however, that we would urge is the informality of the margin at the water's edge, and, in minor degree, of the adjacent sloping sides (Fig 10.) We make a point of this, having seen a fine natural water area bereft of life and charm by having the sides chopped down vertically, levelled and dug, and, subsequently, treated border-fashion. Than this



Fig. 10.—A BOLD GROUPING OF GERMAN IRISES BY THE WATERSIDE, BUT AWAY FROM EXCESSIVE MOISTURE.

we have seen nothing more absurd, nothing which robbed the position of its graceful contour as this ill-considered piece of work, and which merited the failure it really was. The grassed bank or slope in such a case must ever be regarded as embroidery, to be ornamented or studded with vegetable gems, to constitute for each and all alike a veritable setting, but never to be destroyed.

An Initial Error in Waterside Gardening is the apparent belief that soil is nothing to the plants and that water is all in all. Many of those who first started the Japanese Irises in clay soils with their crowns constantly in the water soon realised the error to their cost. The great mat of root fibres these plants make cannot ramify freely in clay, and a submerged condition is well-nigh fatal to the plants. We say this in the full knowledge of the pretty effects obtained at Wisley (Fig. 11), where water is always near the plants. But in moist seasons we have had from open field culture a greater vigour and flowers nearly twice as large as those in the instance referred to. In dry seasons, however, these were less successful, subsequent experiments proving that a modification of the two methods is the best. Japanese Irises revel in rich light soils, leaf mould, peat, sandy loam and manure ; and eighteen inches deep of this above the level of the water, so that the roots can descend and get what they need, will exactly suit the plants. This has been recommended repeatedly with success where hitherto had been failure. And not for these only, but also for Primulas and other plants. The prior failures were probably due as much to the character—its hardness more particularly—of the water as to the soil. Such subjects as the American Swamp and Panther Lilies, Primulas pulverulenta, rosea and Sieboldi delight in similar soils and partial shade, while Gunneras, Bamboos, Astilbe, Spiræa, Senecio, Phlox, and Michaelmas Daisy may also be partakers, should room afford. There should not be many Phloxes, however, since much garishness would be out of place. At or near the water's edge King-Cups, Meadow-sweet, Bullrush, Butomus and Galingale may



FIG. 11.—JAPANESE IRISES BY THE WATERSIDE AT WISLEY.

almost join hands ; the great Gunnera forming a sort of promontory, with the graceful Bamboos on the slopes a little away. In planting avoid repetitions and much variety, and leaning to goodly groups of the bolder things, get from these the best they are capable of giving.

The Brook-margin or Streamlet, clear as crystal, mid the woodland, should be made the home of Fern, Loosestrife, Willow-herb, Spiræa, and Astilbe. Primroses, too, and Forget-me-nots should be present in profusion, as well as King-Cups, and, in the drier parts, the graceful Willow Gentian, *G. asclepiadea*. Here, too, may Japanese Irises spread, and anon, Day Lilies of the bolder types. Of good bulbous plants, *Camassia* and *Leucojum* would be welcome, while the best of the Narcissi—Emperor, Sir Watkin, maximus, Poeticus ornatus, recurvus, and the double Gardenia-flowered Narcissus will not only be found happy in constantly cool or wet ground, but equally so in clayey loam, either here or beside the lake. The last named is also good in partial shade, though heavy loams and moisture with little or no root disturbance would appear essential to a successful flowering. There is, indeed, no lack of material, rather the opposite ; hence, in a closing word, we would warn the operator not to use too much. The streamlet or waterside has to be ornamented ; not so entirely occupied by vegetable life to rob it of its character and charm. Least of all should it be made a dumping ground for all and sundry the herbaceous border cannot contain.

The following article by Miss Gertrude Jekyll, on "Streamside Gardening," appeared in "Country Life." It is, however, so full of instruction that we take the liberty of reproducing it in detail.

"To have water, whether of pond or stream, in a garden is the greatest possible gain, for it enables the ingenious garden owner or designer not only to grow in perfection many beautiful plants, but to treat the watery places, according to their nature and capability, in various delightful ways. The kind of stream that is

easiest to deal with is one which has a shallow flow over a stony bottom and that is not much below the general ground-level. Here we have, ready-made, the most desirable conditions, and it is an easy matter to plant the banks and water edges without any work of shifting or shaping ground.

“ If the little waterway passes through dressed flower garden, it may be tamed to take its part in the garden design in rills and pools and basins, bordered with wrought-stone kerbing and planted with such beautiful things as the Japanese Iris *lævigata* and *I. sibirica*, scarlet Lobelia and the fine double Arrowhead. But if it passes through the outer part of the garden, or near grounds of wilder character, the plants would be, many of them, natives—the Water Plantain with its beautiful leaves, the Flowering Rush (*Butomus*), the lovely Water Forget-me-not, the deep yellow Marsh Marigold, the bright clear yellow *Mimulus*, so long acclimatised that we class it as a native ; then for foliage the common Bur-reed (*Sparganium ramosum*), Lady Fern and Dilated Shield Fern ; then the double form of the wild Meadow-sweet and its foreign congeners the pale pink *Spiræa venusta*, the rosy *S. palmata* and the larger white-plumed *S. Aruncus*, native of the banks of alpine torrents. There are other of our beautiful native water-side plants, but these will be enough for a considerable length of planting. It should be remembered that the best effects are gained by some restraint in the numbers of different kinds of plants used. If in one stretch of 20 feet to 25 feet the plants are blue Forget-me-not, yellow *Mimulus* and Lady Fern only, one can see and enjoy these lovely things to the full, and far better than if there were two or three other objects of interest besides. It should also be borne in mind that the plant-pictures of wise selection and good grouping are best seen from the opposite side of the stream. If its direction is sinuous, there will be ample opportunity for carrying the path across and across, so gaining different aspects of light on flower and water. The path may cross either by stepping-stones or by some very simple

bridge, something much better than the so-called rustic bridge that so commonly defaces garden waters. If the stream is not shallow and stony-bottomed, it is worth a good deal of work and trouble to make it so.

"Not only is it pleasant to see the clear pebbly bottom, but it makes more movement of water, and the movement brings forth that sweet babbling, the language of the water, telling of its happy life and activity. One may learn the value of this both for sight and sound at many a bridge in country places where a road crosses a running stream or small river. On one side or other of the bridge there is generally a shallow, stony place where the water is not much more than ankle-

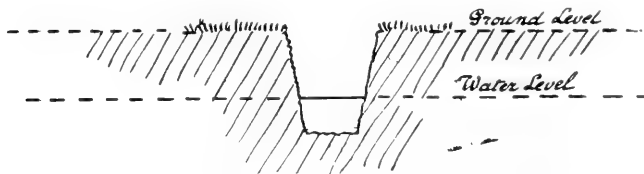


Fig. 12.—Plan showing Section of a Deep Ditch.

deep. However ancient the bridge may be, this shallow is the evidence of a still older ford. The ford must have been made by widening the area of the flow and by shallowing the bottom, putting down stones to hinder its being washed out. It is a useful lesson in the treatment of garden streams.

"Sometimes the only stream one has to deal with is running water in the bottom of a straight, deep, narrow ditch, with nearly vertical sides (Fig. 12). Nothing can be less inspiring to the planter than such a ditch; yet, on the other hand, nothing is more stimulating to its power of invention and determination to convert unsightliness into beauty. The ditch, as it exists, is useless except as a drain, but there is the precious running water—the one thing most wanted. In such a case it is often advisable to make an entirely new channel, excavating a good width so as to gain plenty of space

down at the water's edge, and to give the stream some other form than a straight one. A natural stream is seldom straight, and though in gardening in general straight lines have great value, yet there are often

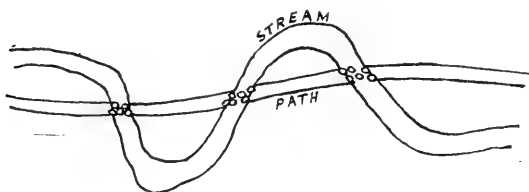


Fig. 13.—Plan of a Pathway and Stream.

reasons for departing from them, especially in ground-work of the wilder sort. So with our stream and its accompanying path, the character of the environment must be considered, the general lie of the land, the nature of the places where the water enters and leaves the garden and so on. The path should swing along in one easy line, not straight, but not going out of its way to twist for no reason—an unpardonable offence in all gardening. The course of the stream may be more erratic, and a glance at the sketch (Fig. 13) will show how such planning gives opportunities for planting and enjoying a limited number of pretty things at a



Fig. 14.—A Streamside Garden that has been made from a Deep Ditch.

time, for each bend of the brook may show quite a different treatment.

“The soil is taken out not only for the wider, shallower stream, but nearly down to the water-level for a

width of some feet on the pathside. The spare earth is thrown up beyond the path and shaped so that it rises first gently and then a little more sharply (Fig. 14). The rest of the excavation goes on the other side of the stream, rising easily from rather near the water's edge. In the section the shrubs on the banks are shown of the size they would be about a year after planting; eventually they would be quite as big again. The course of the stream is dug out less than one foot deep, flattish rough stones are laid at the bottom, and over them smaller stones. If, as is likely, the path is inclined to be damp, it can be made dry and solid by ramming small stones into its surface, or it can be roughly laid with flat stones in the wettest places. The path must have the character of a wild path, not that of a garden walk—nothing that suggests rolled gravel, and no straightly-trimmed edges."

CHAPTER VII.

HARDY PLANTS FOR BOLD PICTURESQUE EFFECTS.

What to Plant.—The number of hardy plants of value by reason of their well-defined leaves or flowering is not numerous, and, in all probability, the best use is not made of those that exist. In the chapter on the shrubbery border we drew attention to the Japanese Windflower (*Anemone japonica*) because of its exceptional value of leaf and flower, and whose good effect introduced into the border in the ordinary way would be either entirely lost or greatly minimised. What is true of the individual is true of the group, and equally so of other genera whose greater attractions lie in a similar direction. For example, such things as *Yucca*, *Acanthus* or Bear's Breech (Fig. 15), Pampas Grass, *Arundo*, *Gunnera*, the recently introduced *Senecios*, the *Polygonums*, and others, have a leaf beauty which should make them independent of the majority; in other words, the plants merit a use apart from the rest. By an intelligent planting of the best of them, the outskirts of the garden, the border line between pleasure ground and park, belts in or near the woodland, sloping banks and prominences, as well as beds or groups in isolation, may all be beautified to an extent of which those who have not tried them would hardly credit. Naturally, however, the size or extent of the grouping would have to bear some degree of proportion to its surroundings. For example, a few dozen of such things as *Eremurus* (Fig. 16), *Yucca*, or *Lilium giganteum* might be ample in one place, while in another hundreds of them would not be too many, if the work were being done on a generous or even lavish scale. By this is not intended that vulgar type of massing seen in suburban villa gardens where the chief desire would appear to be the



Fig. 15.—*ACANTHUS MOLLIS*, OR BEAR'S BREECH, A BOLD AND PICTURESQUE
HARDY PLANT.

getting of everything on half an acre of ground. The plants require a little elbow room, an entire absence of formality, and such intelligent foresight in arranging that the freshly introduced group will reflect in greater degree than heretofore the merits of the plants with which it is now associated. White Japanese Anemone, Yuccas, or *Artemisia lactiflora* might be brought into near proximity with Holly, Yew, Austrian or Corsican Pine, so that the one would mirror the other into greater life and beauty. Rugged banks or slopes, the approaches to or openings in the woodland are some of the places meriting attention in this way. The plants submit to ordinarily good cultivation, but like others repay extra care. For list of suitable kinds see Part III.

CHAPTER VIII.

HARDY FLORISTS' FLOWERS.

What are Florists' Flowers ? — The term "florists' flowers" is applied to a very large section of hardy and greenhouse plants that, abounding in variety, have been evolved from one or more of the species of the genera involved. The florist is one who specialises in certain classes of flowers, devoting his time to their improvement by systematic cross-breeding or by hybridisation, by selection and cultivation. In these ways vastly improved strains or groups have arisen; new colour shades have been added, while the habit of the plant, its freedom of flowering, and the form of the flowers have been much improved. The true florist is continually working for ideals, the perfecting of some particular feature in flower or plant, to the eliminating of the inferior and the superfluous. Examples of such work may be seen in the Auricula, Carnation, Chrysanthemum, Delphinium, Gladiolus, Phlox, Pyrethrum, and other important groups of flowers whose present-day excellence and variety we owe to the persistent labours of the florist working from very small beginnings. In some instances, *e.g.*, the Carnation, Larkspur and Phlox, the identity of the original species has been entirely obscured, though a comparison of them with the finest developments of the moment will but demonstrate the great gulf between, as well as the infinite resource and hidden wealth of even a single species. It is as the unknown wealth of an unworked mine, and, with the raw material at hand, the twain are but waiting for workers. In the past much has been accomplished, and our gardens are thereby greatly enriched. In spite of this, however, the opportunities for improvement are a hundred-fold greater to-day than fifty years ago, by reason of the remarkable influx of new species and that vastly increased store of knowledge, both of which the

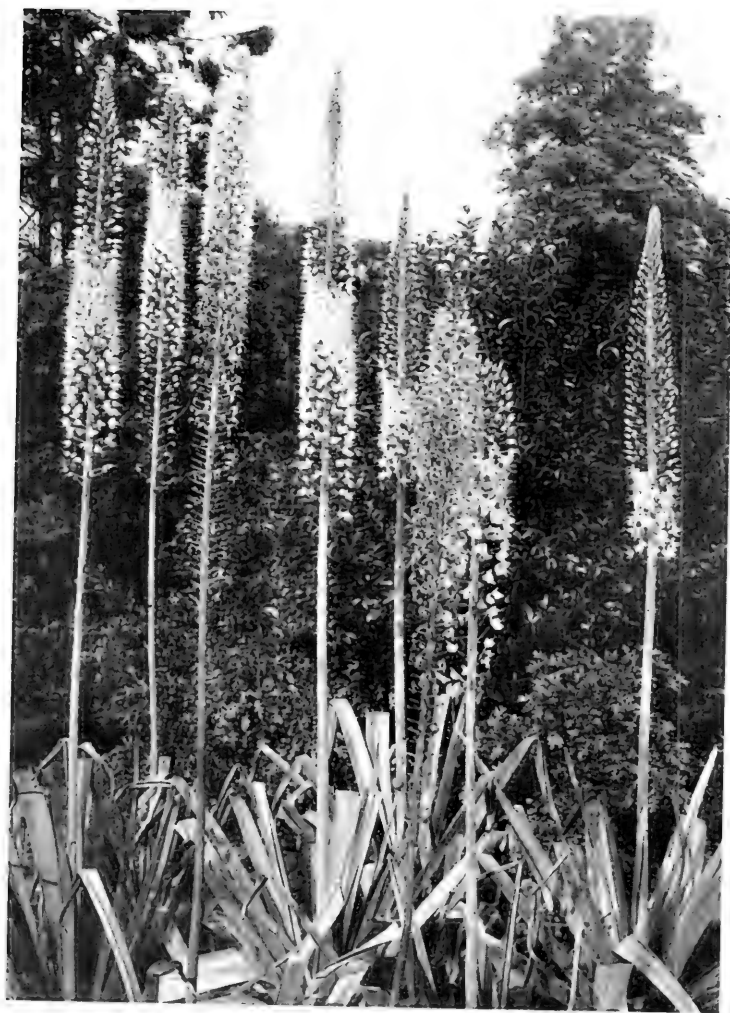


Fig. 16.—AN EFFECTIVE GROUPING OF EREMURI.

(See page 37.)

older generations of florists knew not. The need of the moment is rather in the direction of discerning, intelligent workers, men having the courage of the conviction that "there are as good fish in the sea as ever came out," working to achieve their aims. It is almost invariably necessary to perpetuate varieties of florists' flowers by means of cuttings or offsets, the seedlings having a tendency to produce plants of a mixed and inferior quality to those from which they were originally collected. By reason of their importance, we purpose considering some in more or less detail, giving the necessary instructions in each case.

HERBACEOUS PÆONIES.

The herbaceous Pæony is one of the hardiest and noblest of flowering plants, absolutely indispensable to the early summer garden. In large degree it is typified in the old double crimson European kind, *P. officinalis*, which flowers in May or early June. The hybrid sorts, which are so much appreciated by us, however, have been partly raised from this and other European sorts, though chiefly perhaps from such Chinese species as *albiflora*, *edulis* and *sinensis*, whose flowering is somewhat later. In more recent years a number of Japanese varieties have been introduced, though these as yet are open to improvement. Points of importance, which cannot be ignored, concern their stateliness of growth and fine leaf development, with which is combined a chaste or brilliant colour beauty, great variety, and frequently a delicious perfume. Then in the earlier spring-time we get the rich effect of crimsoned stems and leaves, as brilliant as the Dogwood in winter, and worth making much of in the garden. A possibly weak point is the transient nature of the flowers, more particularly the single and semi-double varieties, though even the best doubles share this to some extent with the rest. Then there is a certain limit to their flowering, an entire absence of profuseness which characterises other

short-lived flowers. There is, however, a great wealth of variety, of species and forms, following each other in rapid succession, and which keeps the Pæony before us for weeks. Moreover, it would appear almost immune from insect pest or fungus.

Its Adaptability.—In no sense or degree can the herbaceous Pæony be regarded as fastidious. A lover of the deepest and best cultivated soils, it is surprising to what perfection it may be grown in sandy and comparatively shallow and light soils. To these, indeed, the plants take kindly and readily. The only classes of soils I would not recommend for these are those of a tenacious clay nature, and in these, too, more than in all besides, they appear prone to a species of root scab or canker, quite unknown, I believe, in soils of light texture. Though most frequently seen as isolated examples in the mixed border, I would strongly urge their use in beds or bold groups apart, or even specialised in extensive borders which they might share in spring with the bolder Daffodils and some of the finer Lilies in autumn. The Pæony, indeed, is worthy of such specialisation, and probably in no other way can it be seen to such advantage. Permitted to grow and develop on natural lines, the stately grandeur of the plant, its leaf beauty, and its charm would be fully revealed. A great Pæony border fringing a carriage drive having a grass verge of five feet or six feet in width in its immediate front would be a sort of revelation: something to admire, something to remember. Moreover, it would worthily present to view a distinguished race, a race whose unfettered beauty would appeal to all. The border-grown example, on the other hand, is tied hand and foot; its bonds the penalty of a feeble unappreciative mind. Bundle or beesom-tied, as we have said elsewhere, its greatest attributes are forfeited by thoughtless work. The Pæony is one of the best, and worthy of *our* best in garden or skill. Occasionally it is seen in the woodland, though for this purpose there is none so good as the old double crimson *P. officinalis*, which is always early awake.


Soil and Cultivation.—The soil cannot be too deeply or too well prepared, and a depth of three feet should be at the disposal of the plants, which, in their finest development may reach four-and-a-half feet high. Therefore, deep trenching and heavy manuring should be the order of the day. The manuring, too, may extend to almost the full depth, since the roots—great powerful thongs—descend to quite three feet in the established plant. By a generous system of treatment, liquid manuring and copious waterings, we have grown them well in soils not more than two feet deep, though they well repay for the remainder. For light soils, cow manure is preferred, because of its cooling nature. For other soils ordinary stable manure is good. Of these there should be no stint. Copious applications of liquid manure are highly desirable in winter time where light soils obtain, with a deluging of water at other times and up to the time of flowering. With such treatment giant flowers result, so large, indeed, as to surprise even those who know them well. The flowers seen at exhibitions are the result of ordinary field culture, though the amateur who specialises need not stop at that. In any case, no one is likely to err on the side of generousness or to upset the powerful root organisation of which the *Pæony* is composed.

When to Plant.—We desire to emphasize the “When” and the “How,” since both are of the utmost importance. We have shown that the *Pæony* is one of the noblest of hardy flowers, though the cultivation of no plant, save the Christmas Rose, is so little understood. Hence, if our emphasis in this direction would appear to border on dogmatising, we ask that it be accepted in good faith, as the embodiment of ripe experience and observation, of much learning and unlearning. In these ways we discovered, years ago, the proper method and time of planting, and none need despair of growing the *Pæony* satisfactorily if he will but follow the same path. The “When to plant,” therefore, is the early autumn, the best months, September and October, and the earlier the better. We have not sufficient space here to discuss

the why and wherefore of this; it is stated as an indisputable fact of vital importance to the future well-being of the plant.

“ **How to Plant** ” is equally important. To plant big clumps of the *Pæony* intact is an almost fatal mistake, as their subsequent behaviour will demonstrate. The right kind of plant is that composed of three to five crowns. If youthful, that is to say, of one year's nursery cultivation following division, it should be in every way excellent. These re-establish quickly and do well; freshly divided examples take a little longer. At planting time the crowns should be buried at least two inches beneath the surface. If planted for immediate effect, the units of any group should be about two feet asunder. Three or five make a good group, though borders of small size would be best with solitary examples. A noble border, planted in conjunction with Lilies and Daffodils, should have the specimens alternately disposed at least three feet asunder. Planted and treated as suggested such a border would be good for a score of years. It would become a feature of any garden in which it was placed, and, moreover, would do the *Pæony* justice.

How to Increase the *Pæony*.—First wash or shake away all soil from the roots. This will reveal to some extent the solid root stock and the thong-like tap roots as they cross and recross each other. If the plant is large, lay it on its side and insert two garden forks back to back, driving them into the root-stock two inches below the crowns. Now wrench asunder by pressing the forks outwardly in opposite directions, and a severance like that of rent oak will be effected without loss. Small plants or subsequent divisions will be best divided by using small hand forks in a similar way. To cut through the root-stock with any sharp instrument is as bad as it is wrong, and is usually attended with much loss. To attempt to divide these stubborn-rooted subjects with hatchet, chopper, or spade, as some advise, is the surest way of making mincemeat of them.



THE DELPHINIUM OR LARKSPUR.

Its Use in the Garden.—Among hardy herbaceous perennials, the Delphinium or Larkspur knows no peer. Unique among hardy flowers, it is absolutely so in the towering splendour of its celestial spires, as these in endless gradations rear their tall columns to a height of six feet or even eight feet. Comparable to nothing but itself, it possesses a characteristic beauty and dignity of its own; distinguished of leaf, imposing in stature, unapproachable in the glistening, dazzling splendour of its flowers, as these in stately columns presently form themselves into battalions—bold, impressive, grand. The well-grown example has an air of distinction about it that is not excelled. To-day it is the admired of thousands; ere long it will be the plant of the million, providing rich clouds of blue and violet flowers in never-ending variety, and without a rival in the world. Happily, too, the plant is of easy culture, succeeding in most well cultivated soils; is true perennial, not prone to fastidiousness. The plant has been enormously improved during recent years, hence has become indispensable to all who garden chiefly in the open air.

Its Adaptability and Culture.—The best effects are produced by massing the plants in beds or borders, a bold group of one colour only. In shrubby border plantings, or where the plant is employed as a great fringe 'twixt lawn and shrub, this idea may be modified. In such instances, good seedling strains or a judicious selection of named sorts will be the best. In other instances, borders might be devoted to the plants, their varying heights—two-and-a-half feet to seven feet—lending themselves admirably to an arrangement whereby they would presently constitute great galleries of colour. In grouping, the bolder growing sorts should be arranged two or three feet asunder; the more slender growing sorts—Belladonna and the like—requiring about one-and-a-half feet of space. So arranged, the plants would endure, without loss, for two, and, in some instances, three years. In the matter of cultivation

the Larkspur, while not a voracious subject, delights in rich soils well and deeply prepared. It takes most quickly to light, well-drained, loamy soils, though bolder and more enduring, perhaps, in soils of stronger character. Poor, hungry and shallow soils are starvation; wet, tenacious clays, doom. Prepare the soil, then, to a depth of two-and-a-half feet or more, and incorporate an abundance of well-decayed stable manure. Heavy soils should receive an ample dressing of lime, also wood ashes and leaf mould; anything, indeed, that will assist porosity.

Planting and Increasing.—The best planting season is spring—March or early April—when the new growth is appearing. The best type of plant—the only one, indeed, worthy of serious thought—is that from the open ground. Where pot plants are received the soil should be washed from them prior to planting. If planted in the old solid ball of earth they may so remain for weeks, unable to penetrate the new soil. Keep the crowns two inches below the surface soil in planting. The *Delphinium* is increased by seeds and by division. Sow the former in shallow drills in the open ground soon after it ripens. Division should be effected in spring, the point of a sharp knife—the plant meanwhile lying on its side after being freed of all soil—inserted in the root stock below the crowns being the best. The work, however, requires care and intelligence to insure the presence of root-fibres and a good crown to each division. Cuttings are useless unless detached by a heel: the complete shoot, and that portion of the root-stock to which it is united. These root readily in a cold frame.

Pests.—Its greatest pest is the slug; often more troublesome on heavy soils than on light ones. The pest secretes itself in the crown of the plant during winter and early spring, and may be dislodged, discouraged, or deterred by frequent sprinklings of soot, by coverings of fine coal ash, and by first syringing the crowns with a quassia soft soap emulsion. Around, the

soil might be pricked up and given light dressings of some soil fumigant, which must not, however, reach the plants.

THE HERBACEOUS PHLOX

(*P. decussata*).

Its Use in the Garden.—In the garden in its day the Phlox is on a par with the Pyrethrum, Iris, Pæony, or Larkspur, dominating it by its presence, its brilliancy or purity, and its exclusiveness. It is the equal of any, and surpassing some by the remarkable profusion of its flowers. It is to the August and September garden what the Pyrethrum and Pæony are to June and July, and, like them, providing a feast of colour beauty—vivid, brilliant, or of chaste purity—with not a little of an all-pervading fragrance. Like the Larkspur, it is so amenable to cultivation and so well adapted to British gardens that it is cultivated by the thousand, affording pleasure to all. In its day it holds undisputed sway; is, indeed, one of the indispensables, of good carriage, happily self-supporting, the leafy stems terminated by well-shouldered panicles of flowers often twelve or fifteen inches through. Of a remarkable colour range, excelling most of all in rich reds, brilliant scarlet, salmon, pink, blue, heliotrope, puce, and the most glistening whites, it appeals to a large circle; its complete hardiness and high decorative merit but adding to a popularity which is well nigh universal. The Phloxes of our time are immeasurably superior to those of a few decades ago; new colour shades have also been added.

Its Adaptability and Culture.—The Phlox is well suited for bed or border, or for making fine colour pictures in shrubbery or in garden scenery anywhere. It should always be boldly massed (Figs. 17 and 18), never planted feebly or as isolated specimens. Preferably, also, the colours should be used alone, a scarlet here, a white there, and a violet or blue beyond. The arranging of



Fig. 17. PHILOXERAS GROUPED TOGETHER IN THIS WAY ARE MORE EFFECTIVE THAN ISOLATED PLANTS.

near colour shades in close proximity is wrong; the stronger and more striking will overwhelm the weak. Hence a rigid selection is calculated to provide the best results. The plant is free rooting, and has a voracious appetite. A lover of cool, moist soils, it should be catered for in all these ways if it is to be the great ornament it really can be in the decoration of the garden. In the summer time the beds and borders may be practically flooded with water twice a week to the benefit of the plant, and to the full development of its huge panicles of flowers. Not greatly fastidious as to soils, save that it dislikes those of a heavy, tenacious clay, the plant luxuriates in all free, rich loams, and the greater the depth, and the deeper and richer the cultivation, the better the results. Phloxes planted from the yearling reach their prime in the third year, though they may be made do good service for a further-like term with generous treatment. This has reference to the cutting-raised plant; the divided example is more erratic and cannot thus be gauged.

When to Plant.—Preference is given to early autumn, though the plant, being a perpetual rooting subject, is by no means exacting in this respect. The earlier the planting is done, however, the better the hold obtained upon the new soil, and the better the results. In light or very sandy soils it is a mistake to delay planting till late spring; summer is upon the plants before they are established, the result being most disappointing.

Propagation.—The only methods of propagation calling for comment here are by cuttings and divisions. The cuttings may be secured from the stems after flowering by a first shortening back of the flower stems, detaching the resultant shoots by a heel and inserting them in a cold frame in sandy soil; or by employing the young shoots in spring. To procure these latter, a plant or two should be placed in a frame to encourage new growth, and when this is four inches or so long, treat them in the usual way by cutting to a joint. These young shoots root best in a greenhouse temperature of about 50 degrees. It will be noticed here that two



FIG. 18.—PHLOXES MAY BE EFFECTIVELY COMBINED WITH GLADIOLI,
OR GLADIOLI.

distinct types of cutting are recommended, *i.e.*, the "heel," comprising a small shoot and the base or junction connecting it with the parent stem, and the "joint" cutting, which consists of a new shoot capable, when rooted, of elongating into a flower specimen. The "heel" cutting of autumn is differently circumstanced; its top growth, which is small, *does not elongate*, the new growth being dependent upon the development of latent eyes or buds at the base of the cutting; hence the need of both types in their season. Division of the old plants can be easily effected by means of two forks during autumn or spring.

THE PENTSTEMON.

This chapter is written under the general heading of "Hardy Florists' Flowers," though it has to be admitted that in many parts of these islands the hybrid Pentstemons are not reliably hardy. These are chiefly descended from *P. Hartwegi*, a Mexican species, also known as *P. gentianoides*, and possibly also, to some extent at least, from *P. cobæa* from the Western United States. So important are they, however, to the hardy garden in summer that they are included herewith, frame or cool greenhouse treatment—a temperature not exceeding 40 degrees—being all that is required during winter. A much hardier set is the so-called "Gem" class, probable descendants of *C. campanulatus*. These are characterised by narrower leaves, and by smaller, more tubular flowers, by profuseness of growth, and floriferousness. As a class they are invaluable, though as yet they do not figure as florists' flowers. They are, indeed, graceful enough and beautiful enough as they are. May they ever remain with such good attributes unspoiled. The florists' set proper are of a bolder type, their fine presence, handsome flowers of many colours on bold spikes, and simple cultural requirements rendering them highly popular. In colour they embrace every conceivable shade of crimson, scarlet and pink, with violet or blue. White is practically non-existent

and is not wanted. Those having scarlet, white-throated flowers, however, are excellent and make a fine display.

Their Adaptability and Culture.—Well grown examples are usually waist high, and are suited to any form of outdoor gardening. Massed in beds or borders they are effective in the extreme, particularly so when grown in beds, with the near-by lawn as a useful foil. Then in shrubbery or herbaceous border they may be liberally used, since no other plant of moderate height can equal them in colour effect. They succeed quite well in good cultivated garden soils.

Propagation.—The methods of increase are by seeds and cuttings, splendid strains being raised from seeds sown in January in slight greenhouse warmth, and grown on for a time in pots prior to planting in the open garden in April or May. The seedlings may have the points once removed to cause them to branch more freely, or they may be grown on and planted without this. The named sorts, or, indeed, any selected varieties, are only to be perpetuated by means of cuttings, (a) in early autumn, from a reserve unflowered batch planted for this particular purpose; and (b) in spring, from stock plants lifted and potted after flowering and given greenhouse shelter for the winter. The autumn-rooted cuttings give a big early display of flowers; the spring-rooted cuttings from under glass constitute an admirable succession; while the seedlings, stopped once or twice it may be, bring up the rear in right regal fashion, gladdening the waning days of autumn with their resplendent flowers. Hence, by the adoption of all three methods a sumptuous feast is rendered possible through several months of the year.

THE PYRETHRUM OR COLOURED MARGUERITE

(*Pyrethrum roseum* or *Chrysanthemum Coccineum*).

From the wild Caucasian species—the most important from the garden point of view of which this genus is

composed—there has arisen a galaxy of varieties, both single and double, that collectively are without a parallel in the hardy plant garden at any season. Absolutely and reliably hardy in all parts of the British Isles, rich and brilliant in colour, providing a waving field of flower-heads impossible to portray by word-picture or brush, these *Pyrethrums* stand unequalled, whether as garden ornaments in flower bed or border, or as ideal flowers—graceful and artistic—in the cut state. These beautiful flowers have been so aptly styled “Coloured Marguerites” that we think no further description is needed. Of graceful fern-like leaf tufts, the plants at flowering time rise to two-and-a-half feet or so high, and give welcome colour touches wherever they may chance to be placed. Those having single flowers, so-called, have an airy grace of their own, and florists and ladies like them because of a charm from which all formality is eliminated. And not only as garden flowers, but as market flowers, are they valued, and there is no greater tribute to universal popularity than this.

Its Adaptability and Culture.—The *Pyrethrum* well cultivated is capable of embellishing any part of the garden, flower bed, border, or shrubbery border. It is at its best in May and June, a second flowering of lesser value and beauty appearing in August or thereabouts. The plant revels in root moisture when in growth, is a voracious feeder, delighting in and well repaying cultivation in the richest and deepest of soils, with a decided preference for light soils which permit of the great mass of root-fibres ramifying freely. It is not happy in cold or wet, badly-drained soils; in these it is of sluggish growth, and, moreover, the slug is its chief enemy in such soils. From the single crown at planting time its highest beauty and excellence is reached in from two to three years, when the plants should be divided.

Propagation.—This is best effected by division, either in March, or in July, after flowering. At such times the roots should be carefully freed of all soil by washing or shaking out, and by careful division, preferably to single crowns if root-fibres are obtainable to each. Such

divisions require potting and cold frame treatment for a month or so to start them into growth, when they are fit for replanting. The spade division of such things is crude and bad, and as it rarely gives good results, it should be discouraged. The plants should be arranged two feet apart, or rather less. In light soils, planting may be done at almost any time ; in others, March and April will be found the best. These plants may also be raised from seeds sown in January or February. As a rule, however, it is not worth the amateur's while, named varieties being both plentiful and cheap.

CHAPTER IX.

EFFECTIVE BORDER GROUPING.

ELSEWHERE in the chapters devoted to the mixed border and the shrubbery border respectively, we have dealt with certain phases of grouping. Now, by means of further illustrations, more particularly to show arrangement, we hope to make the subject of effective grouping more clear and helpful to all. Formerly the only prevailing idea was that of a collection of plants, the greater the number of varieties or species employed, the greater the boast of their owner or gardener. Then, the idea of "effective grouping," of arranging bold masses of the best, was unknown, and borders, generally, were a sort of indiscriminate mixture, a somewhat weedy-looking lot. In those days our schooling had not long begun; whereas now the school-days are past, a fairly good apprenticeship has been served, and some useful knowledge acquired. In earlier days the feeble efforts of planting solitary examples were a hindrance to progress, and while attracting none, caused many to hesitate. To-day all this is changed; the value and capabilities of select plants in masses (Fig. 19) are known and appreciated, hence, a well-arranged border is an attraction, a something which the visitor desires to emulate, in all probability surpass. Its period of attractiveness cannot well be gauged. It may be but a question of weeks, it may be of months. Of necessity this will depend to some degree upon its extent, its make-up, its variety, and not least the dictates of its owner. That is to say, a border may be at its best in early or late summer, or autumn, by planting mainly the subjects flowering at such seasons. Or, such a border, planted with an intelligent knowledge of the subjects employed, might be made presentable over the whole of the seasons indicated. A good idea of a border arrangement which remains effective for a long period is seen in Fig. 19, and the effect of a similar

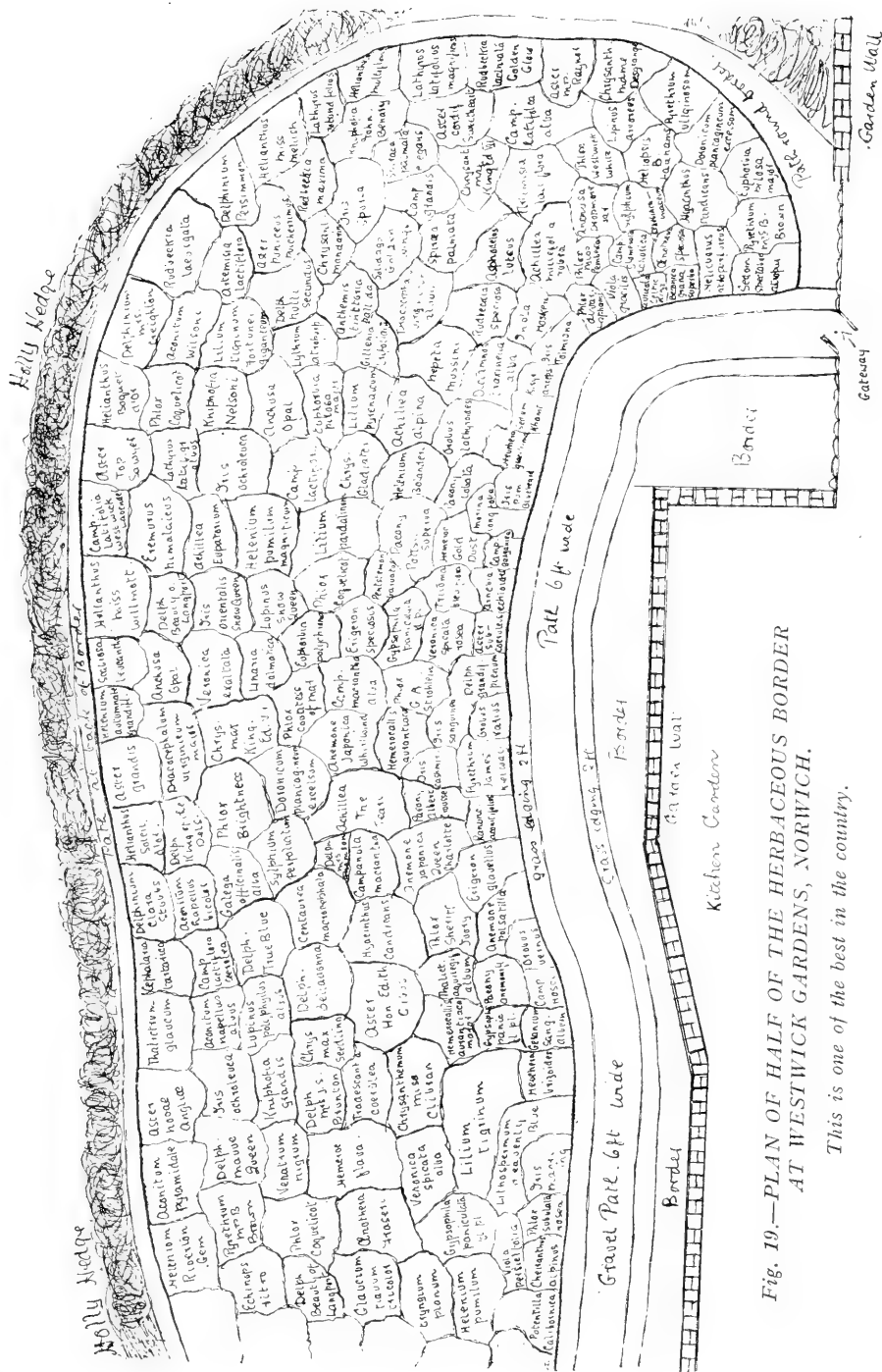


Fig. 19.—PLAN OF HALF OF THE HERBACEOUS BORDER
AT WESTWICK GARDENS, NORWICH.

This is one of the best in the country.

border in Fig. 20. Such a border may either be modified or extended, while a freer use of Michaelmas Daisies in the back groups would extend the autumn display if desired. Hollyhocks, too, would heighten the display in July and August.

The Only Essential to good grouping is the employment of a series of youthful plants so arranged in near proximity to each other that at flowering time they will have grown together, thus forming a natural group or colony. We make a point of "youthful plants" as opposed to big lumps of things more or less exhausted by previous flowerings. Solid clumps of Michaelmas Daisies, Phloxes, or Pyrethrums would be entirely wrong. And a big spreading tuft of a Flag Iris would be equally so. The free use of such material, however, is still indulged in, for no other reason than that it exists at the moment. It is, however, a big mistake, a barrier to complete success. Cultivators of the Chrysanthemum or perpetual-flowering Carnation know well the value of the youthful plant, and, raising new plants annually, discard the old. The hardy plant-gardener in large degree has yet to learn this vital principle, though he who is aiming at high excellence will not long ignore it. Of necessity there will be need for modification and adaptation to circumstances, and we must not be taken as saying that there is need for annual propagation, planting and discarding so far as effective border grouping is concerned. Phloxes and Delphiniums are good for three years, they gain height by their longer tenure of the soil and are more imposing. Pyrethrums are best at two years. Pæonies well planted and in deep loam may be good from six to a dozen years. Michaelmas Daisies vary in their sections. The mat-rooting *Novi-Belgis* we would replant annually, in a few instances biennially, while *cordifolius* and *Novæ Angliæ* would give a good account of themselves up to the third year. Flag Irises are also good for a like period, provided always a start is made by planting these in March or early April, using the single plants only, that section of rhizome formed during the preceding season's growth.



Fig. 20.—A WELL-ARRANGED BORDER SHOULD BE EFFECTIVE OVER A LONG PERIOD.

To plant a great tuft of Flag Irises intact is fatal to good results, if not to a long-enduring plant. It is a mistake to plant these things "midst the breath of parched July." The current season's growth is then ended, hence the plant is thrown on its own resources for months, and often with enfeebling results.

CHAPTER X.

PROPAGATION OF HARDY HERBACEOUS
PLANTS.

THE Propagation of hardy herbaceous plants is effected in a variety of ways ; by seeds, cuttings, division of the root-stock, and by root-cuttings, each of which has a value of its own. Seeds, of course, are Nature's method of perpetuating all vegetable life, and in gardening is a cheap and useful way. Varieties of florists' flowers, which do not come true from seeds, or are slow or unreliable in vegetating, are, however, best increased from cuttings. Certain "strains" of florists' flowers, *e.g.*, Pentstemons, are of such high excellence when raised from seeds that these suit a very large number.

By Seeds.—Garden calendar writers and not a few book writers also have the knack—not always a happy one—of saying that "seeds should be sown as soon as ripe," believing, we suppose, that such advice is in imitation of Nature's way of shedding seeds at that period. We have no data, however, as to how long these self-sown seeds lie before vegetating, though we have direct personal knowledge that certain seeds "sown as soon as ripe" have remained dormant a year or more after others of the same batch which remained unsown for months had vegetated. To some extent, therefore, and in certain instances, vegetation may be said to be hastened by the seeds being kept some time in the dry state before sowing. The great range and variability of seeds, however, precludes any detailed discussion of the question here.

What we prefer to do, therefore, is to indicate some of the more vital points—principles—in this connection. The larger-seeded subjects, such as Lupin, Perennial-Pea, Iris, Kniphofia, Anthericum, Eremurus, Christmas-Rose, Adonis, or quickly vegetating subjects like Anchusa, Gaillardia, Columbine, Iberis, and Alyssum,

are best sown either in drills in the open ground, or with the protection of a spare frame light. Phlox, Iris, Christmas Rose, certain of the Anemones, including *A. Hepatica*, and others very slow to vegetate, should be sown in a place apart or in pans or pots, so that they may be kept for years. All small seeds are best sown in pans or boxes, owing to the interference by birds and animals when sown in the open ground. Seeds of large size should be covered nearly half an inch deep; the smaller seeds should be merely covered their own depth with very fine soil or sand. Primulas and Polyanthus, working by their own weight into the interstices of the soil, are often best without any soil covering at all. The seeds of these, also Eremurus and Columbine, soon lose vitality if long kept out of the soil, and many other instances might be given did space permit.

A Point of Importance is the Time of Sowing.—Frequently we are asked whether seeds of perennials sown in August or September would flower and make a show the following spring or summer. The answer is an emphatic “No”! since the seeds would not probably have vegetated before the arrival of spring. A few of the more precocious kinds may produce a flower or two, but the flowering would neither be good nor representative. The point of importance, therefore, is that the seed sowing be so done that the seedlings have the whole of their natural growing season ahead in which to make themselves. Perennials, generally, take two or three years before reaching full maturity. Kniphofias, Pæonies, Irises, Eremuri and Lilies take much longer, hence the need for careful cultivation all along the line. Avoid thick sowing. Indulge in timely transplanting. To many open-air seed sowing may present difficulties of soil, but if these can be overcome by the addition of well pulverized earth or sand and cocoanut fibre in combination, with due protection from all animal life, the open-air seed bed will be found a great help. Always sow in drills. This system admits of weeding and hoeing, and the latter is most helpful. The gentle hot-bed and slight greenhouse warmth are other and efficient aids to seed raising.

By Division.—Certain classes of plants may be divided with the greatest ease, others require considerable care. Michaelmas Daisies, Trollius, Iris, Helenium, Sunflowers, Arabis, Aubrietia, Hepatica, London Pride (Figs. 21 and 22), Achillea, Phlox, Lychnis (Figs. 23 and 24), and Pyrethrums are instances of plants that are readily pulled to pieces or divided by inserting the point of a strong knife below the ground level of the shoots. The Pæony and Christmas Rose require much greater care, and for these all the soil must first be washed away from their roots with water. Generally the Columbines are unsatisfactory after division, and seeds will be found a better method of increase. For Pæonies and Kniphofias, and, indeed, all plants having stubborn root stocks, or those whose roots are crossed or con-torted, I know of no better way of dividing than by inserting two small hand-forks back to back in the root-stock below the crowns and wrenching them outwards in opposite directions. This has the effect of rending even with the grain of the root-stock and little or no loss is entailed. Blunt and sharp-cutting implements: the spade, chopper, hatchet or edging-iron, cutting through destroy both roots and root fibres. By none can such tools be used advantageously, and in the hands of the least practical they are highly dangerous. There is no better way of spoiling the plants and their roots than by chopping and hacking—the ordinary methods of the inexperienced—with such tools as these. Hence their use is to be sternly discouraged.

By Cuttings.—A chief value of cutting propagation lies in the greatly increased numbers of young plants thereby assured, and which to the specialist is a great asset. Cuttings of soft-wooded subjects, such as Phloxes, Sunflowers, Pentstemons, Perennial Candytuft (Figs. 25 and 26), and others having more or less solid stems, are best made to a joint, *i.e.*, that portion of the stem from which usually the leaves emerge. By removing the lower leaves and cutting in a horizontal direction close to the base of the leaves, the “joint” is revealed, at least in part. These root best in slight



Fig. 21.—An Old Plant of London Pride.



*Fig. 22.—Three Typical Young Shoots of the
Old Plant shown in Fig. 21.*



Fig. 23.—An Old Plant of Lychnis.



*Fig. 24.—Divided Portions of the Old Plant
shown in Fig. 23.*

warmth. The piping is a modified form of the joint, and was formerly most in vogue in the propagation of Pinks. These in June and July root well in a cold frame. Hollow-stemmed cuttings—Delphinium and Pyrethrum, for example—and some others must have a heel attached



Fig. 25.—Portion of an Old Plant of Evergreen Candytuft, with two Shoots suitable for Cuttings.

and are best with cold frame treatment. But whether of joint or heel, the cutting should be always of a youthful nature. Portions of growth already hardened by age or exhausted by flowering are of but little use to the propagator. To avoid these, certain plants should be cut back after flowering, and thus made to produce the right material for cuttings.

By Root Cuttings.—This consists of detaching portions of the roots of plants, making them into uniform lengths of about one-and-a-half inches, and inserting in rows in shallow boxes or pans of sandy soil. The top of the cutting should be just exposed. The winter season, November to February, is the best time. A temperature of about 50 degrees is best for the cuttings. Anchusa, Phlox, Stokesia, Gaillardia, Statice, Eryngium, Oriental



Fig. 26.—Shoot of Evergreen Candytuft as severed from the Plant on the left, and prepared as a Cutting on the right.

Poppy, Japanese Anemone, Primula and Senecio are a few among the many which may be increased in this way. As an adjunct to seeds and cuttings, the method is of great value to the hardy plant specialist. Root cuttings, when they have started into growth, should be treated as ordinary cuttings, potting them and giving frame protection before bedding them out. Quite a number of herbaceous perennials display their tendency to break from the roots, though most of those above named do not.

CHAPTER XI.

DISEASES AND INSECT PESTS.

DESPITE a vigorous constitution and complete hardiness, certain tribes of herbaceous plants are prone to diseases of a fungoid nature, which are both disfiguring and weakening. The Hollyhock and the Madonna Lily (*L. candidum*) are cases in point. The great majority, happily, are free, or the attacks are isolated or rare. In some of these, doubtless, they have either been brought into being, or greatly encouraged to develop, by uncongenial soil conditions, bad drainage creating stagnation, or like cause. In such instances as these, the remedy is obvious to all, viz., more perfect drainage. In wet and clayey soils this may be achieved to some extent by a dressing of lime, which, coagulating the particles of the soil, permits of a freer passage of the water through the agency of the interstices thus formed. Burnt clay (ballast) to such soils has a like effect, and is, of course, of permanent good. Both in conjunction with the usual drainage of the soil should be made much of. Because a plant loves moisture it does not follow that it will do in any form. Moisture, indeed, may be good: stagnation may prove fatal.

Fungoid Diseases.—A disfiguring fungoid disease, like that affecting the Hollyhock, is best combated by spraying with Condyl's Fluid, Bordeaux mixture, or a salt solution every fourteen days. Use a breakfast-cupful of common salt to three gallons of water. Employ an Abol syringe with fine mist-like spray so that the solution does not reach the roots of the plant. For Hollyhock disease, Messrs. Webb and Brand recommend the following:—Slake one bushel of lime, and when cool add one bushel of soot, 4 lbs. flowers of sulphur, and 2 ozs. sulphate of copper, finely powdered. Pass the mixture through a fine sieve, and

dust the plants well over with it three or four times during the growing season and when the leaves are damp.

For Irises, Gladioli, Lilies, Violets, Christmas Roses, Delphiniums and Carnations spraying with Sulphide of Potassium is to be preferred, one ounce to three gallons of water, not oftener than every fourteen days. For the first two-named, because of their sword-shaped leaves—though it may be used in all cases with good results—a little soft soap should be added to the solution. This will assist it to adhere to the leaves of the plants. Both surfaces of the leaves, upper and under, should be wetted. This is important, as the fungus, indeed, often vegetates on the under surfaces of the leaves. In low-lying and damp situations, where certain plants are more prone to disease than in higher ground with more bracing air, it is best to try preventive measures. *Don't wait till the plants are overwhelmed by disease before making a start.* Above all things—this advice is golden—burn at once all the fungus-smitten parts of plants; don't take them to the rubbish heap for a time, for they may reappear in the garden another year a thousand-fold stronger.

Insect Pests.—The chief of these are Wireworm, Slug, and short-tailed Vole. The only remedy for Wireworm that I know, apart from birds with young and at other times, is "Catch and Kill." Soil fumigants are said to do the latter, but that is not the author's experience. Lily bulbs, Carnations, the rhizomatous Irises, and all the Gladioli suffer considerably from their attacks. Daffodils, happily, are immune. Slices of Potato on sticks, and sunk into the earth, is a good way of trapping them. Frequent stirring of the soil also renders them a prey for birds. Gas lime is efficacious, but can only be applied to vacant ground.

Slugs.—These are easily killed by contact with the advertised soil fumigants. Common salt, either dry or in solution, is also fatal to them, and is strongly recommended for vacant ground. Apply the solution from a coarse-rosed watering can. Neither of these must be

applied to the plants or even quite near them. In the case of Eremurus, Larkspur, Pyrethrum, or other plant suffering much from their attacks, owing to their hibernating in the crowns, a quassia and soft soap solution syringed into the crowns will be helpful. It should be followed by a covering of coal ash, which is protective. We have found the V.T.H. slug trap, baited with bran, excellent for catching these pests. Caterpillars are best got rid of by hand picking and dropping them into a small pail with salt and water. This is also effectual for slugs and snails in those instances where hand-picking has to be resorted to.

Aphides and Cuckoo-Spit.—These are easily got rid of by syringing with paraffin and soft soap emulsion, or by the use of tobacco water. For the last-named, a little force from the syringe will remove the protective “spittle.” Neither do great harm to herbaceous plants. For Carnations, Marguerites and other plants subject to attacks from leaf miners, a quassia and soft soap emulsion should be sprayed over the plants to render them distasteful to the egg-depositing fly. Soot water might also be employed to the same end.

PART II.

INTRODUCTION.

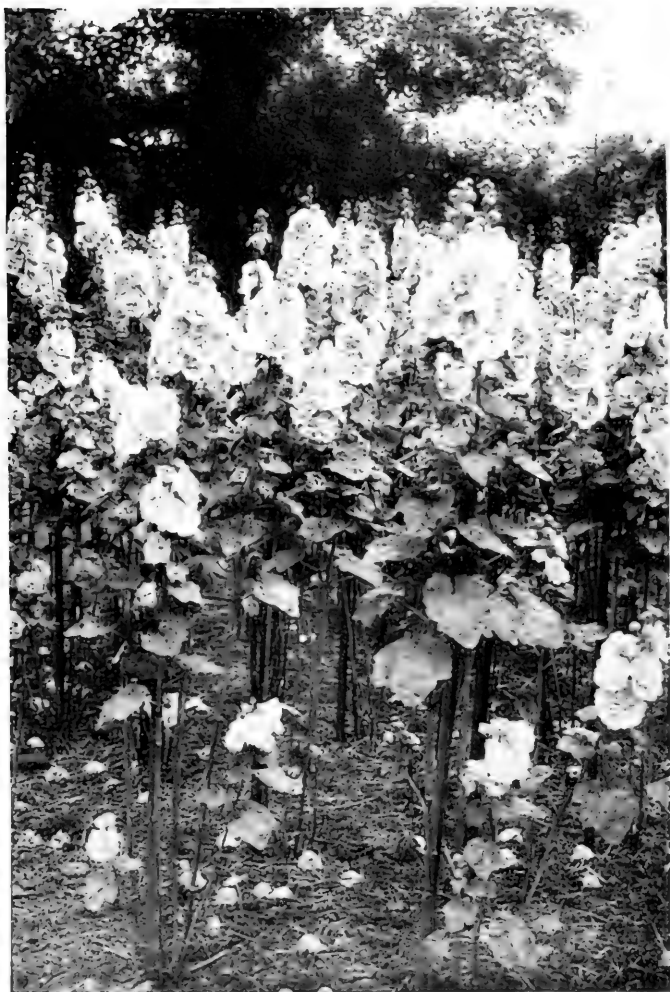
IN the following pages we give, in alphabetical order, a selection of the most useful and ornamental genera to be found among herbaceous plants. Distinct varieties are also added, together with brief cultural details, best methods of increase, and other salient points. For fuller and more precise information in the matter of seed sowing and propagation, the reader is referred to the special chapters on these subjects in Part I. As a guide to the planter, the approximate heights of the established plants are given, though it should be remembered that these vary, not only with localities, but with soil depth and richness, rainfall, seasons and other things. Whilst not ignoring the dwarfer growing subjects, greater attention has been paid to the more showy—the indispensables—which, by reason of good habit or freedom of flowering, will be found most attractive in the border. As a means of familiarising these plants and rendering reference thereto of easier moment, the popular English names—following the generic, or family name—will be found given in brackets.

Acantholimon (*Prickly Thrift*).—The most serviceable species of this small genus is *A. glumaceum*; the choicest, *A. venustum*. The flowers are coloured rose and pink respectively, and are borne in two ranked spikes of six inches or so high. The leaf tufts are dense and spiny. *A. glumaceum* is a capital edging plant on light soils, and both are good in the rock garden. Flowers in summer. Increased by seeds, careful division in spring, or by small heel cuttings in August.

Acanthus (*Bear's Breech*).—Stately herbaceous perennials best suited to picturesque grouping or in beds in isolation. Their handsome leafage has been as much esteemed by the sculptor as by the gardener, and is frequently seen in Corinthian architecture. When established, the noble tufts of arching, glossy green or silvered leaves reach a yard high and often six feet across; the flower spikes about six feet high. Given generous treatment they are noble indeed. *A. mollis latifolius*, rose and white, and *A. spinosus spinosissimus*, rosy flesh coloured, are the best. Flowers in July. Increased by division in spring, seeds and root cuttings. (See illustration, page 38.)

Achillea (*Milfoil, Yarrow or Sneezewort*).—The border kinds are all free, robust growing subjects, and succeed well in ordinary garden soil. *A. filipendulina* and its variety *eupatorium* are four to five feet high, with flatish corymbs of yellow flower heads. *A. Ptarmica* fl.-pl., A.P. The Pearl, and *A. P. Perry's white*, the most recent addition to the group, are white-flowered and useful in the cut state. *A. alpina*, also white-flowered, two feet; and *A. millefolium roseum*, two-and-a-half feet, are very desirable. Division in early spring.

Aconitum (*Monk's-hood or Wolf's-bane*).—It should be stated at once that these are poisonous, hence should never be allowed in children's gardens. *A. Hemsleyanum* and *A. Vilmorinii* are climbing herbaceous plants with blue flowers. *A. lycoctonum* and *A. pyrenaicum* are yellow; *A. Wilsonii* five to six feet high, a recent introduction from China, is a grand plant, flowers deep



*Fig. 27.—A BOLD GROUP OF DOUBLE-FLOWERED
HOLLYHOCKS.*

blue ; *A. Fischeri*, *A. autumnale*, two-and-a-half feet, violet blue. All of easy culture. Division in spring or autumn. The varieties of *A. Napellus* are only worthy a place in the wild garden.

Adonis (*Ox-Eye*).—A small yet important genus of spring flowering plants having yellow saucer-shaped flowers and elegant fern-like foliage. *A. amurensis* pushes out its golden cups in February and is much esteemed. Its double form, *A. a. fl.-pl.*, with golden outer petals and olive-green centre, is a great favourite. Both reach a foot high or rather more. *A. vernalis* glories in March and April sunshine, when it gives its glistening yellow, three inch wide flowers. All prefer deep, rich, light sandy loam and sun-warmed places. Avoid root mutilation and winter division. Spring is best. Raise seedlings in plenty.

Alstrœmeria (*Herb Lily*).—The most valuable species, as it is the most hardy, is *A. aurantiaca*, whose orange-bronze, Lily-like flowers appeal to all. This plant is better suited to a warm position away from the border proper, where it may remain a dozen years without disturbance. Plant six to eight inches deep, in autumn, when dormant. Light, loamy, well-drained soil is best. Give a good layer of manure three inches below the tubers. June-July flowering. Increased readily by division and seeds.

Althæa (*Hollyhock*).—*A. rosea* (Fig. 27) is the common Hollyhock. A noble plant affording giant spires of flowers in July and August. The best results are obtained by raising seedlings and good reliable strains in all shades of colour are obtainable from the seedsmen or specialists. Sow in early spring and transplant to permanent position in autumn. For treatment of disease see page 68.

Anchusa (*Alkanet*).—A chief value attaches to this small genus by reason of the intense gentian blue of the flowers of *A. italica* and its varieties, of which *A. i. Dropmore* (Fig. 28) is perhaps the noblest. *A. i. Opal* has "sky" or "Cambridge blue" flowers. While not

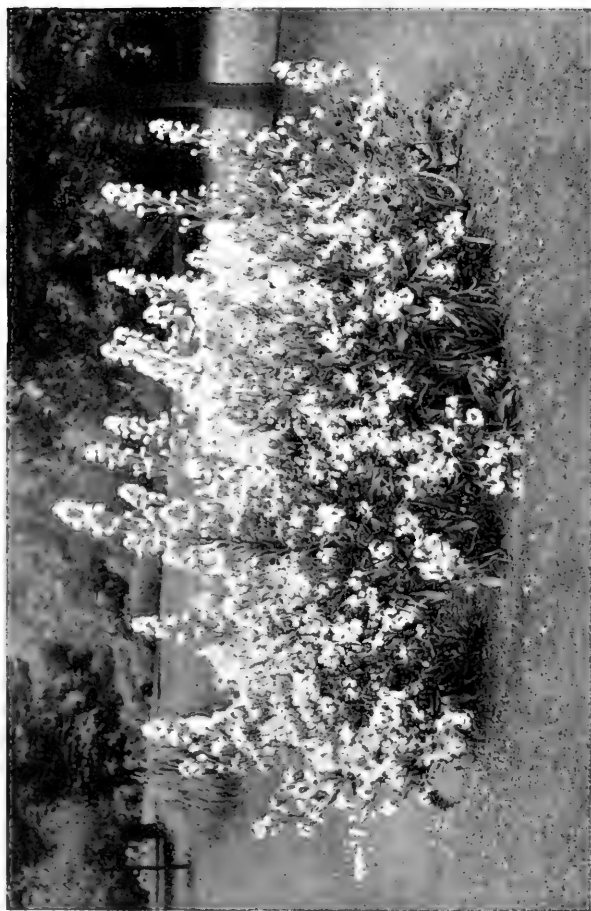


Fig. 28.—A BED OF THE DROPMORE VARIETY OF *ANCHUSA ITALICA*.

fastidious, the plant grows well on most soils, including chalk. Well-grown examples reach to six feet high or more. Whilst quite a good perennial, the plant often becomes exhausted by profuse flowering, and should, therefore, be periodically increased from root-cuttings. (See Propagation, page 67.) Seeds are freely produced, but the seedlings vary, and the best types should be raised by root-cuttings as suggested. *A. myosotidiflora* has Forget-me-not like flowers and is a very beautiful plant.

Anemone (*Windflower*).—A genus rich in beauty and variety. *A. blanda* (the Grecian Windflower) stains the earth with blue in February and March. *A. Hepatica* ("Common Hepatica") gives cushions of flowers in red, white and blue in spring. Following these come the "Pasque Flower," *A. pulsatilla*, in purple robe arrayed. In May appears the "Snowdrop Windflower," *A. sylvestris*, rather less than two feet high, and anon *A. alpina* and *A. sulphurea*, the greatest of the Alpine Windflowers, and good border plants withal. Then, in turn, the glorious array of cheap, easily grown Poppy Anemones, prolific seed bearers and easily raised therefrom. Last, though not least—as invaluable as they are indispensable—come the distinguished Japanese sorts of autumn, of which a dozen or more varieties are now grown. These prefer light, loamy soils, and grow apace if not too frequently moved. Some good ones, apart from the reddish flowered type, are *A. japonica alba*, white; Queen Charlotte, pink; Lord Ardilaun, white; elegantissima, rosy; and Lady Ardilaun, purest white. These, when established, are about four feet high. *A. nemorosa* Robinsonii, *A. n. Allenii*, and *A. fulgens* are also valuable among dwarf kinds flowering in spring.

Anthemis (*Chamomile*).—The best garden forms are those belonging to *A. tinctoria*, E. G. Buxton and Kelwayi for example, both of which have yellow Marguerite-like flower heads. A much better plant, richer in colour, is *A. Triumphetti*, which is not at present well known, though eminently desirable. All are profuse

bloomers. Flowering period, June-September. Easily increased by division. Height two feet to three feet.



Fig. 29.—Cuttings of Double Arabis prepared for planting.

Anthericum (*St. Bruno's Lily*).—Liliaceous plants of much beauty and charm. The indispensables for the



Fig. 30.—The Cuttings Planted in a Box.

border are *A. liliastrum* and *A. L. major*, known to science as *Paradisea liliastrum*. The plant is tuberous-

rooted and revels in rich cool loam. The sweetly-scented Lily-like flowers are arranged on spikes two-and-a-half feet high, and are chastely pure and elegant. Flowers in June. Increased by division, preferably when dormant in early autumn, and by seeds, which are abundantly produced.

Aquilegia (*Columbine*).—Whether in the ornamentation of the flower border or in the cut state these occupy



Fig. 31.—A Flowering Plant of Double Arabis raised from a Cutting.

a unique place. No hardy flower is more graceful or elegant; few more easily managed or grown. Difficult to increase by division, they come in their battalions from seeds, and should be so increased. Spring sowings should be made in warmth; autumn sowings in drills in the open. *Chrysantha* is yellow, three feet to four feet. The *cœrulea* hybrids in pink, rose, cream, yellow and scarlet are two feet high, and are a lovely race. *Glandulosa* and *Stuartii* are dwarfs, rich in colour and well suited for colonising in the rock garden. Flower in summer.

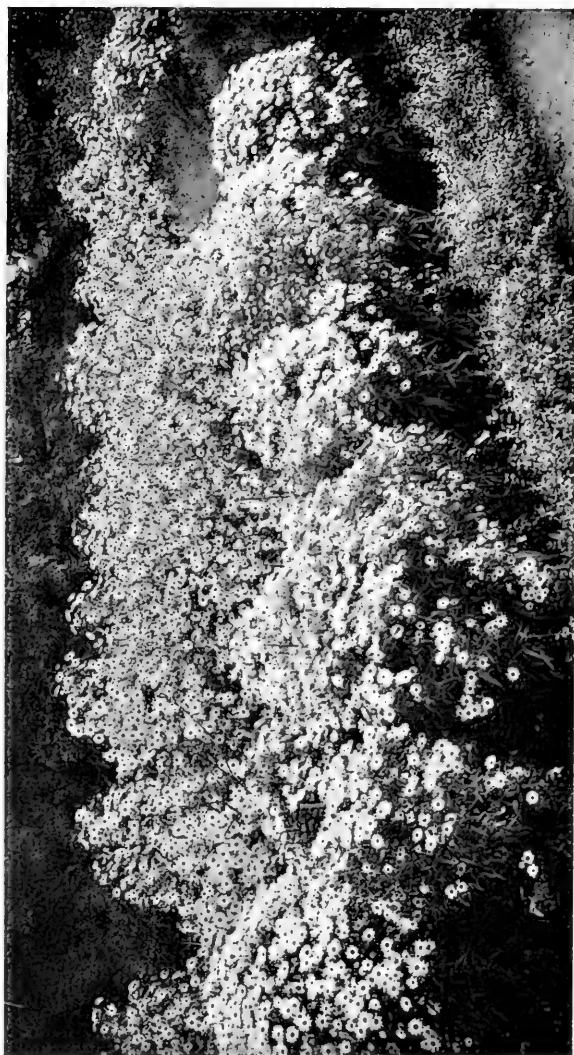


Fig. 32.—A BORDER OF MICHAELMAS DAISIES, WITH EVERGREEN SHRUBS
AS A BACKGROUND.

Arabis (*Rock Cress*).—The common white *Arabis* is known to all. The plant mantles the earth with its leaf tufts, which in spring are enshrouded with white flowers. In the poorest of soil it rambles away apace; for old walls or ruins it is excellent. The double white, *A. albida* fl.-pl. (Figs. 29, 30 and 31), is a modern introduction, with double flowers on miniature stock-like spikes. Flowers in spring. Propagated by cuttings.

Artemisia (*Wormwood*).—The need for referring to this rather large group of weedy or economic plants arises by reason of the recent introduction, from Western China, of *A. lactiflora*, a species having creamy white inflorescences. To get the best results it should be planted in front of Holly, Yew, or any such dark-leaved subjects. Flowers July-August. Division. Any good garden soil.

Aselepias (*Butterfly Weed*).—*A. tuberosa* is the only species of note for the hardy plant gardener. The stems are hairy, erect, two feet high; the bright orange flowers in umbels disposed in a branched corymb. Flowers July-August. Prefers sandy soil or peat and loam. Increased by seeds.

Aster (*Starwort or Michaelmas Daisy*).—The old-fashioned Michaelmas Daisy was a weed; its modernised form a revelation of beauty with improvements everywhere (Fig. 32). The plants are of the easiest culture in good garden soil; all are readily increased by division, preferably in spring. Cuttings root readily when young, and for such as the Italian Starwort (*A. amellus*) constitute the best method of increase. Planting may be done in spring or autumn. The Italian Starworts are of a uniform height of two feet, and in violet and reddish blue shades are most effective. (See Chapter IX. on grouping.) The Michaelmas Daisy proper now covers a vast field, and any small selection would of necessity omit not a few good ones. Those named, however, are indispensable to any garden. Beauty of Colwall, violet purple, the first double Michaelmas Daisy. Climax, bright violet blue, a great



*Fig. 33.—MICHAELMAS DAISY DESIRE, A BEAUTIFUL
SMALL-FLOWERED VARIETY.*

acquisition. Chastity, white. Bianca, sprays of pure white. Desire (Fig. 33) of the *ericoides* set, small flowers, neat and elegant. Lil Fardell, silvery rose. Lustre, rosy lilac. Mrs. S. T. Wright, large rosy purple, excellent. Mrs. Frank Brazier, clear blue. St. Egwin, soft rose. *Cordifolius Ideal* and *C. Photograph*. *Aster acris* and *A. subcœruleus*, two feet and one foot respectively, are also invaluable among dwarf-growing sorts.

Astilbe (*Goat's Beard*).—A genus greatly enriched during recent years, both in colour and variety. One and all are suited to the cool, moist places of the garden, or to waterside areas, which they endow with much natural charm. The original species *chinensis*, *japonica*, *rivularis*, and *Thunbergii*, with the more modern *A. Davidii*, have, doubtless, contributed their quota to the fine hybrid race we now have, of which *Ceres*, *Peach Blossom*, *Queen Alexandra*, *avalanche* and *rubella* are a few. *Silver Sheaf*, too, is excellent. *Grandis*, a giant six feet high, is a noble plant with nearly pure white plumes of blossoms. Flowers in July and August. Increase by division when dormant.

Aubrietia (*Rock-Cress* or *Alysson*).—Carpeting plants of great beauty, suited to old ruins, edgings, wall, or rock gardening. As carpet plants to bulbs, other than those of great vigour, they are too heavy and mat-like in growth, and, moreover, root too deeply. These ever-green herbaceous plants are of the easiest culture in ordinary soil. When inclined to become straggling, prune them back closely after flowering with shears, and a few weeks later divide and replant. The older forms, *e.g.*, *Bougainvillea*, *græca*, *Hendersonii* and others, all varieties of the *Purple Rock Cress*, *A. deltoidea*, are now superseded by such as *Dr. Mules*, *Fire King*, *Lavender*, *Leichtlini*, *Prichard's A.I.*, and *Mrs. Lloyd Edwards*, size of flower and brilliant new colouring being added. Fresh young cuttings root readily when an inch or so long; old wiry shoots that have flowered are useless for propagation.

Bocconia (*Plume Poppy*).—Plants of distinguished bearing, having roundly heart-shaped, deeply lobed

leaves and giant plumes of brownish flowers. Best suited to the wild garden, shrubbery, or beds in isolation. The two species, *B. cordata* and *B. microcarpa*, have much in common, and both are highly effective. Height six feet or more. Flowers June-July. Increased by division in spring.

Caltha (*Marsh Marigold*).—These are among the most brilliant of spring flowers for waterside or streamlet. Luxuriating in the fat mud of ditch bottoms, they are valuable for the artificial bog. Occasionally treated as aquatic plants, they are seen to better advantage as marginal subjects, where their tufts of glossy leaves and golden flowers render them ideal in May. *C. palustris monstrosa*, *C. p. Tyermanni* and *C. polypetala*, a fine single-flowered species, are the best. Increased by seeds and spring division.

Campanula (*Bellflower*).—A genus alike rich in border kinds and those we associate with Alpines. Regarded collectively the first-named set prefer deep, well-enriched and cool soils or situations. The varieties of the Peach-leaved Bellflower, *C. persicifolia*, are particularly prone to attacks by thrips when grown in dry situations or hot, sandy soils. Its best varieties are *alba-plena*, *coronata*, *grandiflora*, and *Moerheimii*, all white-flowered. Newry Giant and Porcelain are blue flowered singles of the same set. These rank from two to three feet high. The Carpathian Bellflower (*C. carpatica*) is rich in good things and in variety, the plants ranging from nine inches to eighteen inches high. All are of tufted habit and suited to the front row of the border. *C. c. alba*, *C. c. pallida*, *C. c. pelviformis*, *C. c. Riverslea*, and *C. c. White Star* are the best varieties. *C. c. Robert Parker* has much in common with the latter, the plant being of somewhat bolder habit. The Chimney Bellflower (*C. pyramidalis*) and its varieties deserve a place in every garden. Though frequently seen in greenhouse and conservatory, and usually regarded as biennials, the plants are true perennials, and are most imposing—indeed, unique—when freely grouped in beds or near to shrubbery borders. The plants reach

to six feet high, and the flowers are blue or white in bold columnar spikes. *C. latifolia* Burghalti, and *C. l. Van Houttei* are hybrids about three feet high, with long blue pendent bells. *C. Hendersoni*, *C. Fergusoni*, and *C. Hillside Gem* are also of garden origin and of flower value in August and September. These are blue-flowered and from one-and-a-half feet to two feet high. *C. lactiflora* grows into a handsome bush of four feet high, and is smothered with pale blue flowers in late summer. Its variety, *C. l. celtidifolia*, is also a handsome plant. *C. glomerata dahirica*, one-and-a-half feet, has terminal heads of Royal purple flowers. *C. (Platycodon) grandiflora* is the so-called "Balloon flower." A most valuable late summer flower. *C. grandis* is a very old plant, shy-flowering in some soils, though very effective when in good flower. It is two-and-a-half feet high, and flowers in July. Dwarfier sorts, suitable for edgings or informal borderings, should include *pulla*, *pulloides*, *G. F. Wilson*, *muralis* and *pusilla* in variety. These are but a fractional part of a great genus. All are increased readily by division in autumn and spring, by cuttings of the young shoots in spring and by seeds. (See general article on seed sowing, etc., p. 61.)

Catananche (*Blue Cupidone*).—Wedded to the simplest cultural requirements there is all the charm of the "Everlastings" about these plants, the flowers of which may be dried for winter use. Everybody should grow the type, *C. cærulea*, and its variety *bicolor*. Height two feet. Easily raised from seeds in the open garden. Good for cutting; distinct and attractive. (June-July.)

Centaurea (*Cornflower or Knapweed*).—The annual Cornflower, *C. Cyanea*, is universally known and admired. The varieties are easily raised from seeds. The best perennial kinds are *C. Babylonica*, silvery foliage and yellow flower-heads, four to five feet high. *C. glastifolia*, also yellow, with silvery leaves. *C. macrocephala*, with almost thistle-like heads of golden yellow, three to four feet high, is a little too coarse for the ordinary border. *C. montana rubra* is the best of the mountain Knapweeds. The plant is two feet high, the

flower-heads rosy red. Excellent for cutting. *C. dealbata*, with silvery foliage and rosy flower-heads; and *C. ruthenica*, four feet, primrose yellow flowers and handsome foliage, are also desirable. Division in spring or autumn, and by seeds. Common garden soil.

Centranthus (*Valerian*).—The “Red Valerian” (*C. ruber*) is the only species of merit, and this is valuable for its colour alone. The white variety is less attractive. The plant thrives in chinks of walls, on old ruins, revels on chalk or limestone, and in the poorest of soils. Hardy, vigorous, showy and free. Height two feet. Seeds.

Chelone (*Turtle Head*).—North American plants allied to *Pentstemon*. *C. Lyoni* and *C. obliqua* are the most worthy, and have pink and rose flowers respectively on stems nearly three feet high. There is a white variety of the latter. Division in early spring. The brilliant scarlet-flowered *Pentstemon barbatus* is frequently catalogued as *Chelone barbata*.

Chrysanthemum (*Ox-eye Daisy or Shasta Daisy*).—The good varieties of these, which are now so plentiful in gardens, have probably been evolved from such species as *C. lacustre*, *C. leucanthemum*, and *C. maximum*. Their perfect hardiness is equalled by simple cultural requirements, freedom of growth and flowering. The varieties range from two feet to four feet in height. Their great vigour and spread of root-stock demands, if the best floral results are desired, biennial division. This is best done in early autumn or in spring. A broad belt in front of Holly or Yew hedge has a singularly good effect. All have white Marguerite-like flower-heads. There are two types in general cultivation, viz.: those having narrow florets (petals), and those with broad ones. *Davisi* and *Robinsoni* are good examples of the first; King Edward VII., Mrs. Charles Lothian Bell—the largest of all—Progress, Triumph, Rev. H. Sanders, and The Speaker being typical of the latter. *C. (Pyrethrum) uliginosum* is six feet high or more, and coming at Harvest Festival time is of much value.

Cichorium (*Chicory*).—This native wildling (*C. Intybus*) is included because of the rare beauty of its rich corn-flower blue flowers. The plant, while not desirable, perhaps, in the choice border, is valuable in the wild places of the garden, and will take care of itself in the stoniest of soils. Propagated easily by seeds sown in the open garden in April or May.

Cimicifuga (*Bugbane* or *Snake-root*).—Tall, vigorous growing perennial herbaceous plants whose feathery plumes or panicles of white flowers are very pretty in the late summer garden. In the near distance the plants are effective, hence are good in the shrubbery or skirting woodland places. The best border sorts are *C. simplex* and *C. racemosa*. Cool or moist soils are best for the last. *C. americana* and *C. cordifolia* are other good sorts. In some the flowers have an unpleasant odour.

Convallaria majalis (*Lily of the Valley*).—Perhaps the sweetest and most popular flower on earth, albeit we are content to purchase it rather than to grow it for its worth. Or, if grown, it is in dense, almost impenetrable masses, and flowers are few. Plantations should be divided freely and replanted every four or five years. Starting with strong flowering single crowns, and arranging them six to eight inches apart each way, the bed may stand for ten years if annually mulched with manure and liberally treated with liquid manure. Loves cool places, shade, and the richest of soils. Prepare the bed deeply. October is the best planting time. The best varieties are *Fortin* and *Victoria*.

Coreopsis (*Tickseed*).—Showy North American herbs, annual or perennial, the former usually known as *Calliopsis*. The best perennial kinds are *C. grandiflora*, *C. lanceolata*, albeit after a good flowering they become exhausted and fresh seedlings should take their places. Height two feet or so ; flower-heads golden or rich yellow on slender wiry stems. Valuable for cutting. Raise from seeds annually or biennially.

Coronilla.—The majority of this genus are of shrubby habit. Two at least are herbaceous, and invaluable as

trailing subjects, in the rock garden more particularly. *C. iberica* (Cappadocica) has clusters of golden-yellow pea-shaped flowers, and is most effective. *C. varia* has rose-coloured flowers. Spring division and seeds.

Cortaderia (*Pampas Grass*).—Too well known to need description; too meritorious to be omitted. *C. (Gynerium) argenteum* and its varieties are best. Invaluable in bold groups and in isolation, particularly on the lawn. They succeed best in light, well-drained yet rich soils. In cold districts the specimens should be tied up into a cone shape and protected with pea-sticks and bracken during winter. Raised from seeds or increased by division, preferably in spring.

Crinum (*Cape Lily*).—These South African bulbous plants should be given a sheltered place apart from the herbaceous borders, such as the foot of a warm south wall where a three feet deep bed of soil, rich and well drained, should be prepared. In favoured places near the coast they are quite hardy; elsewhere, winter protection should be given. In planting keep the bulbs six inches below the surface. The best are *C. capense* (longifolium), *C. Powellii*, *C. P. album*, and *C. yemense*. Increased by offsets and seeds. Dislike frequent disturbance.

Cyclamen (*Sow Bread*).—If not suited to the border proper, the hardy Cyclamen possess a value of their own on the fringes of woodland places or in company with the larger growing Ferns. They appear to delight in the shelter and companionship of other plants, and revel in the decaying vegetable matter around. *C. Coum*, in variety, *C. repandum* (hederæfolium), and *C. europæum* are among the most beautiful. Plant in autumn. Propagated by seeds.

Cypripedium (*Lady's Slipper*).—The finest of this race of hardy Slipper is the Moccasin Flower (Fig. 34), a wildling of the North American bogs and swamps. Its flowers are rose and white, and appear June–July. *C. Calceolus* (English Lady's Slipper) and *C. pubescens* have brown sepals and yellow lip. *C. acaule* (stemless



Fig. 34.—THE MOCCASIN FLOWER (CYPRIPEDIUM SPECTABILE).



*Fig. 35.—A LARGE BED OF THE GIANT ASPHODEL
OR EREMURUS.*

Lady's Slipper) has large, rosy-purple flowers. All are spring flowering. The first-named requires spongy peat, leaf mould and moisture, and is not averse to manure. The others do well in peat and loam in drier places. *C. Calceolus* is usually found growing in calcareous soils, but it does as well in ordinary peat and loam. Always plant in autumn.

Delphiniums or Larkspurs.—See Part I., pages 46 to 48.

Dicentra or Dielytra (*Bleeding Heart or Lyre Flower*).—The most beautiful species is *D. spectabilis*, which is susceptible to spring frosts. The established plant reaches three feet high, its arching racemes of pendent rose-coloured flowers being highly ornamental. It is largely grown in pots for the conservatory. *D. eximia* and *D. formosa*, one-and-a-half feet high, are much hardier, both have rosy flowers and fern-like leaves. Garden soil. Division in spring.

Dictamnus (*Fraxinella or Burning Bush*).—Old-fashioned herbaceous perennials of great vigour and freedom of flowering, the established bushes reaching three feet high and as much through. The plants are slow growing, thriving best in deep, strong loam. Flowers red or white. *D. albus* is the type, and *D. a. himalaicus* and *D. a. purpureus* are good forms. *D. caucasicus*, a fine plant, has affinity with the above. Sun or shade; plant in spring or autumn. Division and seed.

Dodecatheon (*American Cowslip or Shooting Stars*).—As unlike our English Cowslip as may be, these pretty North American plants more resemble *Cyclamen* clustered and pendent, on foot high stalks. They are rose-coloured, pink or white. Love cool and shady places, in peat and loam. There are several varieties, but those usually seen belong chiefly to *D. Meadia*. *D. Jeffreyi* is the strongest growing. Raised from seed, an interesting variety is secured. They are rather impatient of disturbance.

Doronicum (*Leopard's Bane*).—Showy herbaceous plants of the easiest culture in common garden soils. The best and tallest variety is *D. plantagineum excelsum*, which attains a height of three feet or more. *D. austriacum* and *D. caucasicum* are about two feet high. All are yellow flowered and give sheaves of flowers in spring. Increase by division after flowering.

Echinacea (*Purple Coneflower*).—The only species to be noted is *E. purpurea*, a rather stately herbaceous plant, three to four feet high. The florets are coloured reddish, and there are improved forms in nurseries. Easily grown in well-cultivated garden soils. Seeds and division in early spring.

Echinops (*Globe Thistle*).—The Globe Thistles are both picturesque and ornamental, hence are suited for woodland or shrubbery, and, occasionally, in beds in isolation. Height four to six feet, flowering in late summer. By reason of their distinctive beauty each kind should be grouped alone. *E. bannaticus*, grey-blue; *E. giganteus*, silvery foliage, and globular steel-blue flower-heads; *E. Ritro*, very handsome blue; and *E. spærocephalus*, silvery of leaf and whitish flower-heads, are the best. Division in spring, root cuttings, seeds.

Epimedium (*Barrenwort*).—Pretty spring-flowering plants having Barberry-like leaves and yellow, white or red flowers. Associate well with the Fern-tribe and delight in shady places. *E. coccineum* has scarlet flowers and bronze-tinted leaves. *E. pinnatum* has nearly persistent foliage and yellow flowers. It is, perhaps, the best. Light, sandy or peaty soil. Division in spring.

Eremurus (*Giant Asphodel*).—Noble herbaceous plants with columnar spires of flowers six feet to twelve feet high (Fig. 35). They inhabit Northern India, Persia, and Central Asia, and embrace white, flesh-coloured and yellow flowers. The many hybrid sorts, too, are very beautiful. Flower in June and July. They are most effective in groups near to woodland and shrubbery. Require deep and rich soils. Plant in October or

November. By reason of their lateral root spread they are not well suited to the ordinary border. Some of the best are *E. robustus*, *E. r. Elewesianus*, pink ; *E. himalaicus*, white ; *E. Bungei*, yellow ; *E. Shelford*, bronzy-yellow and buff ; and *E. Warei*, salmon and bronze. Seeds : Sow soon after ripening.

Erigeron (*Fleabane*).—Excellent herbaceous plants of the easiest culture in good garden soil and for the most part free flowering. For border decoration, *E. speciosus* *superbus* and *E. Quakeress* are the best, and the twain are very profuse bloomers. The predominant colour is lavender blue in Michaelmas Daisy-like flower-heads. Height two feet. *E. aurantiacus* is less than one foot high ; colour orange. The former are easily increased by division, the latter by seeds.

Eryngium (*Sea Holly*).—The culture and method of increase given for *Echinops* suit these exactly. The most ornamental of a beautiful race are *E. giganteum* (Ivory Thistle), and *E. oliverianum*, whose amethyst-blue stems and flower-heads attract everybody. This handsome subject attains three to four feet high. *E. pandanifolium* is a giant of eight feet high when in flower, and is best suited to the wild garden.

Fritillaria (*Crown Imperial*).—From out of an extensive genus we select *F. imperialis*, stately bulbous-rooted herbaceous perennials of three to four feet high, affording clustered heads of pendent yellow or rich brown flowers ; and the Snake's Head Fritillaries (*F. meleagris*), which, in their chequered flowers of white or purple, are valuable in grassland or border. Both are of easy culture. Height one-and-a-half feet. Seeds.

Funkia (*Plantain Lily*).—The glory of the "Plantain Lilies" is vested in *Fortunei*, *Sieboldii* and *Sub-cordata* syn. *grandiflora*, the established examples of which may reach a yard across and the same in height when in flower. They make handsome tub plants for terrace gardening. The blue or glaucous foliage of the first two named is very striking ; the last named is valuable in

pots for conservatory. Its white flowers are sweet scented. Flower: August to October. Deep rich soil. Divide and replant in autumn.

Gaillardia (*Blanket Flower*).—The popular name is neither suggestive nor good. There has been much improvement in these showy herbs during recent years, the perennial sorts having their origin in *G. aristata*. Splendid strains are obtainable from seeds, which should be sown early in the year, and planted out in May for flowering a year later. The florets are coloured yellow and crimson. Some are almost wholly crimson. Lady Rolleston is self yellow, disc and all. Named sorts are numerous. The plants are of the easiest culture, and grow about three feet high.

Galega (*Goat's Rue*).—Hardy, vigorous, free and profuse-flowering herbaceous plants, luxuriating in quite poor soil. *G. officinalis*, lilac; *G. o. alba*, white; *G. Hartlandi*, a bicolored form; *G. His Majesty*, clear mauve, and the finest of all, are good. Flower: July-September. Height four to five feet. Spring division is best, and not too rich a soil.

Galtonia or Hyacinthus candicans (*Cape Hyacinth*).—A stately bulbous-rooted plant from South Africa. Flowers white, bell-like, pendent, abundantly produced on stems four to six feet high. Flowering period, July-August, but this with successional planting may be much extended. Fine for beds or border. Well-drained loam. Seeds.

Gentiana (*Gentianella*).—The garden *Gentianella* (*G. acaulis*) is beloved by all, but not all can grow it. Its stoloniferous shoots ramify best in light, sandy, peaty or vegetable soils, and in such the plant usually grows and flowers freely. Conversely it would appear to abhor close, ill-drained, tenacious clay soils. *G. asclepiadea*, the Willow Gentian, is a delightful plant for the woodland, where it does splendidly in stony, sandy, or heath-like soil. May I plead that nobody will ever rob this plant of its grace and charm by tying it to sticks. Plant in autumn. Seeds. Division.

Geranium (*Crane's-bill*).—The following belong to *Geranium* proper. *G. armenum*, purplish crimson ; *G. grandiflorum*, deep violet flowers ; and *G. ibericum*, rich purplish blue, are the best border kinds. Height two-and-a-half feet. *G. Endressi*, rose, one-and-a-half feet, is very pretty. Any position, and good garden soil. Division in spring or autumn. Seeds.

Gerbera (*Barberton or Transvaal Daisy*).—This brilliant flowering South African plant is only reliably hardy in this country near the sea or in favoured positions at the base of a greenhouse wall, with winter protection. It may be grown with ease in the greenhouse, though its flower-heads lack the intense orange scarlet of those grown in the open. The plant revels in heat, and in a Cucumber house grows apace. Prefers peat and loam or sandy loam. Easily grown from seeds, which must be sown as soon as ripe. The species referred to is *G. Jamesoni*. There are many hybrids : yellow, rose, pink and other shades. The flowers are now being grown for market, and sell well.

Geum (*Avens*).—These are useful and showy, as well as profuse flowering. All grow freely in well-cultivated soils. The best garden plants are the varieties of *G. Chiloense*, usually catalogued as *G. coccineum*. Of these, the double scarlet-flowered *Mrs. J. Bradshaw* and *miniaturum* are best. *G. Heldreichi*, orange ; *G. H. superbum*, reddish orange ; and the varieties of *G. montanum* are also excellent. The last has golden yellow flowers, and is one foot high. The others are one-and-a-half feet to two-and-a-half feet. Division in spring.

Gynierium argenteum (*Pampas Grass*).—See *Cortaderia*.

Gypsophila (*Gauze Flower*).—*G. paniculata*, and its double form *G. p. fl.-pl.*, are both in demand by the florist decorator, and are valuable in the cut state. They are more useful than attractive. Height two-and-a-half feet. The type species is easily raised from seeds, the double one should be increased by careful division, by

heel cuttings in early spring, and by root cuttings.—(See Chapter X.)

Helenium (*Sneeze-weed*).—A genus of useful free-flowering perennials, the most important being the varieties of *H. autumnale*. The specific name is somewhat misleading, as not a few are in full beauty before the season indicated. All are of the easiest culture in good garden soils. In height they range from six feet in the case of the type to one-and-a-half feet in *H. a. pumilum*: *grandicephalum striatum* (syn. *autumnale striatum*), *Riverslea Beauty* and *Riverton Gem* are the best of the tall growers; *pumilum* and its variety *magnificum* being the best of the dwarf varieties. There are reddish flowered sorts, of which *Cupreum*, two feet, is the best. *H. Bolanderi* two-and-a-half feet, orange-yellow, with dark disc, is quite the earliest of its race to flower. Increased to any extent by division in spring or autumn, and by root cuttings and seeds.

Helianthus (*Sunflower*).—The perennial Sunflowers are of two types, those with compact stay-at-home root stocks and those with travelling or stoloniferous root systems. The latter are variations of the "Prairie Sunflower" (*H. rigidus*), and repay for annual transplanting in earliest springtime. Varieties of *H. multiflorus* may remain two years or longer. Its best varieties are **Bouquet d'or*, *Maximus*, and **Soleil d'or* together with the type. The best of the *H. rigidus* group are *Miss Mellish* and *Wolley Dod*. *H. sparsifolius* is a giant in the same way. *H. mollis* and *H. tomentosus* have woolly leaves. *H. orgyalis* is the willow-leaved Sunflower whose miniature flower heads occur in a rather dense panicle. This makes a fine specimen in isolation. It is October flowering. All are good autumn plants, single flowered except those marked thus *, and yellow. Height four to six feet. Increase by division in spring or autumn, and by cuttings.

Heliopsis (*Orange Sunflower*).—Deeper in colour, with smaller flower-heads and a more refined habit than the

Sunflowers. Amenable to the same treatment. Height four feet. July-August.

Helleborus (*Christmas Rose*).—The most precious of hardy herbaceous winter flowers (Fig. 36), and as such merits the attention of all. Essential cultural details are deep sandy loam—three feet of it where possible—perfect drainage, light shade, and, *greatest essential of all*, September or October transplanting. It is fatal to success to plant these in big lumps intact; they must be freely broken up. It is equally bad to lift and pot—and so-call “force” for winter work and then tumble them back into their old quarters. The leafless plants which follow this treatment are its greatest condemnation. Need one say more? The following are varieties of the Christmas Rose (*Helleborus niger*), and all are desirable; *Altifolius* (*maximus*), very large, November; Major, or Bath variety, and *Scoticus*, December; *Angustifolius* and *Mdme. Fourcade*, January. *Riverstoni* and *St. Brigid* are also good. The flowers are white, flushed externally with rose. The Lenten Roses (*H. orientalis*) and others are of a different class, and submit to transplanting in spring or autumn. They delight in the thin shade of hazel and other twiggy trees, and the shelter thus afforded assists in retaining their foliage, which is a great gain. Strong loam, or loam over chalk, suits them well. They are from one foot to one-and-a-half feet high; flowers white, rose or purplish and copiously spotted. Interesting and beautiful in woodland and shrubbery places.

Hemerocallis (*Day Lily*).—Strong, vigorous growing herbaceous perennials, beautiful, in large degree refined, and all free flowering. The dwarfer kinds as *flava*, *Apricot*, *Dumortieri* (*rutilans*), *Middendorffiana* and *Thunbergi* are from two feet to three feet high, and give a succession of yellow trumpet-shaped flowers from May to August. The bolder sorts, such as *fulva* and its varieties *Kwanso* and *K. fl.-pl.*, with *disticha*, are four feet high and well suited to woodland or shrubbery. *Aurantiaca major*, *Aureole*, *Citrina*, *Dr. Regel*, *luteola*,



Fig. 36.—CHRISTMAS ROSES WITH HARDY FERNS.

and Sir Michael represent the modern side of this valuable race, and are very handsome. All have arching leaves in tufts, and are hardy in the extreme. Increase by division in autumn or spring. Good border soil suits them well.

Hepatica.—(See *Anemone Hepatica*).

Hesperis (*Rocket*).—The typical species (*H. matronalis*) is worthy of a place in the wild garden only, where its fragrance would be esteemed. The double white and double lilac, *H. m. fl.-pl.* and *H. m. lilacina plena* respectively, are among the oldest of border perennials. They are two-and-a-half feet or more high. Prefer a strong holding loam and a cool situation generally. The plants have giant Stock-like pyramids of flowers in June and July. May be increased by division, though more freely from cuttings in late summer. The plants require careful attention or they exhaust themselves by flowering.

Heuchera (*Alum Root*).—The coming of the brilliant scarlet *H. sanguinea* from New Mexico, nearly 30 years ago, was a great gain, and, in conjunction with the other species, it has given a race of plants valuable alike for grace and ornament. The plants range from two feet to nearly three feet high at flowering time, and are at home in any good, light, loamy soil. The varieties *splendens* and Walker's variety are improvements on the type, while the modern race of hybrids *micrantha*, *sanguinea* and others are invaluable. The plants form a cushioned tuft of leaves, above which the elegant flower sprays issue. Seeds. Division in spring. Flowers July-August.

Hollyhock.—See *Althæa (rosea)*.

Iberis (*Candytuft*).—The perennial Candytufts are virtually under-shrubs, but of much service in the border or rock garden. The forms of *I. sempervirens* are good trailing plants, while *I. correæfolia*, a valuable hybrid of garden origin, is best as a marginal plant. *I. gibraltarica* is a large-flowered kind, not reliably hardy. It is, however, easily raised from seeds. *I. superba*, a selected



*Fig. 37.—A BEAUTIFUL BORDER OF GERMAN OR
FLAG IRISES.*

form of the first named, has very large heads of flowers. Of quite easy culture. Increased by young cuttings in August. Flowers in spring. (See Fig. 26, page 67.)

Incarvillea (*Perennial Trumpet Flower*).—*I. Delavayi* is a modern introduction from China, and a plant of distinction and merit. From a ground tuft of arching, shining, pinnate leaves two to three feet long, the flower scapes rise three to four feet high. The flowers are trumpet-shaped or *Bignonia*-like and coloured rosy red. The plant dies completely down, hence its position should be marked. The fleshy roots are very brittle. Perfectly hardy and easily raised from seeds. *I. grandiflora* is a superb dwarf kind, of a foot high, with rosy-crimson flowers; a grand plant in the choice border or rock garden. Sandy loam. Flowers June-July.

Inula (*Fleabane*).—The Georgian *Fleabane*, *I. glandulosa*, may be likened to a golden yellow, single-flowered *Chrysanthemum*, four inches across. The leaves are densely woolly. Height two feet. June-July. It is from the Caucasus. *I. grandiflora* and *I. Royleana* are Himalayan, and yellow flowered. Garden soil. Division in spring. Root cuttings, seeds.

Iris (*Flag or Fleur de Luce*).—The genus *Iris* is unique among hardy herbaceous plants, unique in the delicate colours of its flowers, endless in its extent and variability, unapproachable in a season of flowering, which takes at least six months to exhaust. Hence, one might garden with *Irises* alone and still find in this remarkable family an inexhaustible store of pleasure and change. Quite recently a sumptuous monograph has appeared, of which Mr. Rickatson Dykes is the author, and only in some such way is it possible to treat of so vast a subject. To consider even in brief detail the most worthy of the genus would necessitate more room than is being devoted to this entire volume, hence we refrain from the impossible. For present purposes, therefore, it must suffice if we treat of the three main indispensable groups, viz.: the bulbous or “*Xiphions*,” the “*Flags*” and their allies, and the great *Clematis*-flowered *Irises* (*I. lævigata*) of Japan.

Irises, the Bulbous.—Popularly known as “Spanish” and “English,” *Iris Xiphium*, and *I. Xiphioides* respectively, of the botanist, are June-July flowering, and grow two feet or so high. They are in blue, white, bronze, violet, porcelain, yellow and other shades, are much valued for cutting because of their artistic bearing, and are highly ornamental in beds. To beauty and utility must be added the great attribute of cheapness; hence, they should be grown by all. They prefer light, sandy, well-drained soils, and should be planted in October and November, setting the roots four inches deep in the earth. The bulbs of the “Spanish” varieties are so small that four inches or five inches asunder will afford them ample space at flowering time; the “English” should have almost twice the room.

Flag Irises.—These comprise the so-called “German” Irises (Fig. 37), which have been derived from such species as *pallida*, *neglecta*, *squalens*, *amœna*, *variegata* and others, and collectively they are perfectly hardy, free-flowering and amenable to ordinary garden soils that have been well cultivated and enriched. The best planting season is March-April, though they are planted at other times, yet not without loss. It is a mistake to plant big clumps of these, single crowns or rhizomes (Figs. 38 and 39) are infinitely the best. A dozen such would make a group four feet across, and everyone would flower when established and remain good for three or more years. The *pallida* varieties are among the finest of them all, and such as *dalmatica*, *Her Majesty*, and *Ed. Michel* are particularly fine. *Queen of May*, *Gracchus*, *Darius*, *Chelles*, *Mdme. Chereau*, *Mrs. C. Darwin*, *Thorbecke*, *Dr. Bernice*, *Kharpout*, *Oriflame*, and *Ma Mie* are a distinct and good set.

***I. lævigata* or *I. Kæmpferi*.**—These are the “Japanese flags,” and are characterised by large petalled flowers ranging from six to twelve inches across. Great numbers are sent each year from Japan, though chiefly from Tokyo, Hondo, and the gardens adjacent to the river Sumida. They are moisture-loving, though doing well in deeply-tilled, richly-manured soils. Light to medium

loam is best with abundance of leaf soil and cow manure. Adhesive clay soils are abhorrent to them. Reputedly water-loving they are immeasurably superior in growth and finer in flower when the plants are a foot or more above water level and the roots in rich vegetable soil.



Fig. 38.—Portion of an Old Plant of German Iris.

The plants have a most voracious appetite, which should be duly catered for. The plants resent frequent disturbance. The best planting season is April. These are the most sumptuous of all the Irises, and come as a great and fitting final in July. Varieties are numerous; the self-colours are the most effective. Division: seeds.

Kniphofias, or Tritomas (*Red Hot Pokers*).—These, also known as Torch Lily and Flame Flower, are among the noblest of perennials and unequalled for their high ornamental value. They appear indifferent to heavy or light soils, though a well-drained one is almost essential. The great errors made in their cultivation are cutting them down in autumn or early winter and dividing and transplanting them at the same periods. Should much



Fig. 39.—Single Crowns of German Iris ready for Planting.

frost ensue the plants will most likely perish. Fine clumps of them merit tying up after the manner suggested for the Cortaderia (Pampas Grass), which see on p. 87. Early spring is the best time to divide and re-plant. The plants vary from four feet to eight feet high. The varieties of *K. aloides* are still among the best, *glaucescens*, *grandiflora*, and *grandis* being handsome and distinct. These are giants in their way, and to them John Benary should be added. All have

brilliant orange scarlet spikes of flowers. *Nelsoni* and *Macowanii* are beautiful miniatures and less hardy, while *Goldelse* and *Solfaterre* are in the same way.

Lathyrus (*Perennial Pea*).—The varieties of *L. latifolius* are the most important. Two, *albus* and *The Pearl*, are white flowered, and the last-named is a superb sort. The plants are deep rooting, and will descend to three feet or so, hence the soil should be well prepared. *Splendens* has rosy red flowers. These have an ascending or climbing habit, and may attain six feet or eight feet high. They are very profuse flowering. *L. grandiflorus* and *L. rotundifolius* are other species of merit. The flowers are rose coloured and appear in June and July. These may be increased by division. The varieties of *L. latifolius* are increased by seeds and by cuttings secured with a "heel" (see Chapter X., page 66) in early spring.

Liatris (*Snake-root*).—A small genus of North American perennial herbs, with rosy purple flower-heads arranged in long dense columnar spikes. *L. graminifolia dubia* is the finest variety, and is six feet high. *L. elegans* (*Blazing Star*), *L. pycnostachya* (*Kansas Gay Feather*), and *L. spicata* are dwarfer. Increased by careful division in spring and by seeds.

Lilium (*Lily*).—The genus *Lilium* is at once the most diverse in form and variety, the most sumptuous, fascinating; anon, fastidious and tantalising to the cultivator, of any of the many races of hardy bulbous flowers. It could hardly be otherwise, seeing the wide geographical distribution of the genus. Lily species and varieties come to us from many lands, though they are essentially northern-world plants; China, Japan, Europe, Canada, the forests and mountains of California, Siberia, and the mighty Himalayas each contributing its quota among others. Hence, not a little of their diversity of form and character, and possibly also a little of their fickleness. Herein is work for the earnest student of the flower who, with fuller knowledge, might presently divine their needs and learn much of



*Fig. 40.—A GROUP OF MADONNA LILIES WITH A
BACKGROUND OF DARK GREEN FOLIAGE.*

their vagaries and caprices when under cultivation in the British Isles. In Nature, doubtless, the plants are more or less freely reproduced from seeds—we have proof of this in the marked variability of certain species. Let us take the lesson to heart, and do likewise where we can. In Nature, too, some inhabit dry woods, others veritable swamps, others rocks and hills, and others the richer soils of the valleys, hence the impossibility of succeeding with all in any one British garden. For those best suited to our circumstances, however, a few general hints may be given that may prove helpful.

Lilies, Cultural Hints on. Generally the stem rooting kinds and their varieties, *e.g.*, *auratum*, *speciosum*, *croceum*, *Davuricum*, *Henryi*, *japonicum*, *umbellatum*, and *longiflorum* delight in richly manured soils. Some, like *speciosum*, revel in manure above and below the bulbs. Such as these should be planted six inches or more deep. These, too, provided that basal root action follows the planting, are more quickly established. The non-stem rooting kinds, such as *chalcedonicum*, *Martagons*, *candidum*, and others, require more time to establish, and being dependent upon one root action alone, *i.e.*, basal, do not flower in the year of planting unless the bulbs are of the largest size. Another set, *pardalinum*, *canadense*, *superbum* (Swamp Lily), and others revel in rich vegetable soils, peat, leaf-mould, and moisture. Not a few others, such as *Krameri*, *rubellum*, *Hansoni* and *Marhan*, prefer the shelter and root companionship of shrubs, which, while insuring comparative root-dryness at all seasons, also safeguard the young stem growth from frosts in spring. Stately growers like *candidum* and its variety, *c. speciosum*, with *testaceum* and such sturdy members of the race as *croceum*, *umbellatum*, *tigrinum* and *Martagon*, grow quite well in the open border. Regarded generally, the Lily prefers light, well-drained soils, the moisture-loving and Swamp Lilies excepted. *Martagon album* and *chalcedonicum* are among those which do not object to heavy, loamy soils, though they certainly object to frequent disturbance. Plant in early autumn where possible.

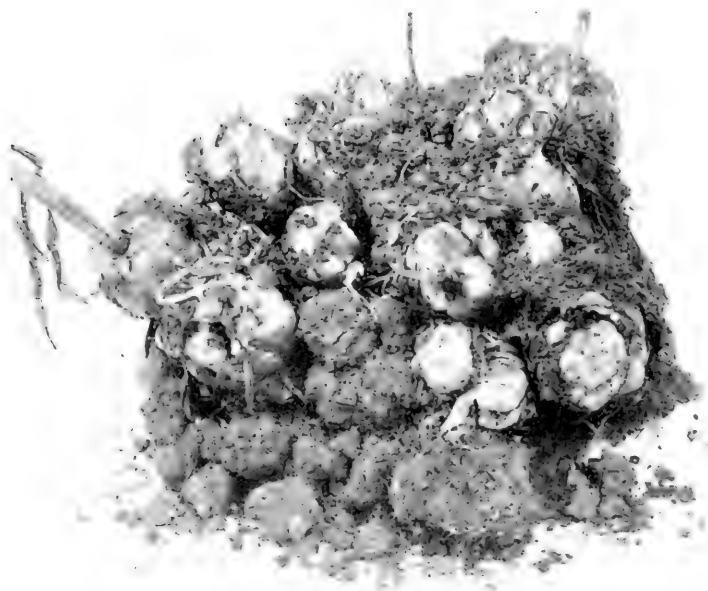


Fig. 41.—CLUMP OF LILY BULBS READY FOR TRANSPLANTING.

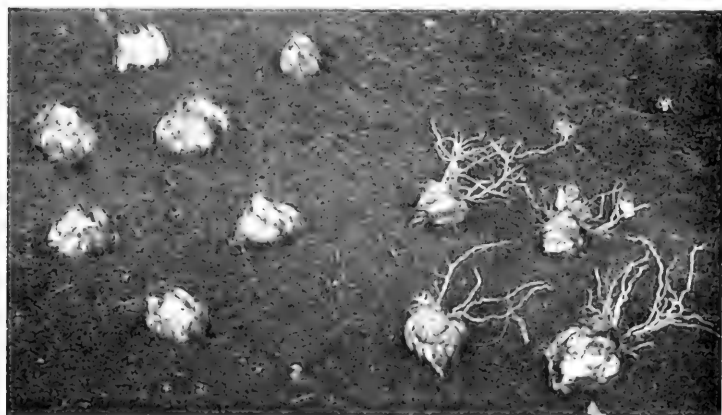


Fig. 42.—HOW TO ARRANGE LILY BULBS FOR PLANTING.

Sound imported bulbs of *auratum* may be planted in February and March. The Madonna Lily, *L. candidum*, should be planted in August, preferably where it can have a dark background of evergreens (Fig. 40). The varieties of *longiflorum* are not a permanent success in the open garden unless in favoured places. They are valuable for pots and require generous treatment. Lilies are increased by means of seeds, sow as soon as ripe ; by scales, the fleshy parts of the bulbs sown in sand and cocoanut fibre ; by bulblets in some instances, and by division (Figs 41 and 42).

Lilies, The Best Garden kinds are those of the *archelirion*, *isolirion*, and *Martagon* or *Turk's Cap* groups. The first-named includes *auratum*, *speciosum*, *tigrinum* and *Henryi*. Of the *auratums* *platyphyllum* is the finest ; it is vigorous, handsome and tall, a veritable peer among its fellows. It is five to six feet high. Loam and peat, or rich sandy loam. July-August flowering. The *speciosums* flower in September, and are four to five feet high. *Album Kraetzeri* and *album Novum* are white ; *cruentum*, *macranthum*, *melpomene*, and *magnificum* are rich coloured and highly ornamental. Richly cultivated soils. *Henryi* is a distinct and handsome orange-coloured species, six feet high. Same treatment as the last. The Tiger Lilies are accommodating border sorts, and, moreover, may be increased freely by means of the bulblets on the stems.

The *isolirion* group have the flowers erect as in the common orange garden Lily, *L. croceum*. *Dauricum*, *umbellatum* and *elegans* all belong to this set, and range from one-and-a-half feet to three feet high. Some of the *elegans* set are very dwarf and are best grown in pans in the greenhouse. The varieties are rather numerous. Those of the three first-named are sturdy and vigorous and increase freely.

The *Martagons* or *Turk's Cap* Lilies are valuable and highly ornamental. *Chalcedonicum*, *pomponum* and *p. verum* are brilliant scarlet, two-and-a-half feet high. July-August. *Hansoni* and *Humboldti* are rich

yellow, spotted with black, four to five feet. July. *Monadelphum* var *Szovitzianum* (colchicum) is a grand yellow-flowered Lily and one of the earliest to bloom. It is of great vigour and freedom of flowering. Height three to five feet. *Martagon* is purplish though variable. *M. album* is white. *M. dalmaticum* is purplish-black. All are graceful and free. July. Height three to five feet. *Pyrenaicum* is yellow, two-and-a-half feet, and all are copiously spotted. *Canadense*, *Burbanki*, *pardalinum* and *superbum* are delightful members of this set and good garden Lilies to boot. They love rich vegetable soils, peat, and moisture, and are attractive in cool woodland shade.

L. giganteum is a noble kind from the Himalayas, rising to ten feet or more when in flower. The great pendent flowers are white stained with crimson. This species is only satisfactory when raised from seeds. Seedlings take six to eight years to flower. The seedlings should be planted in their permanent positions at three years old. Offsets are given off after flowering, and these should be grown on again.

L. candidum, or the Madonna Lily (Fig. 44), requires a warm, sunny position in rather poor soil. Its dark stemmed form, *L. c. speciosum*, is a grand plant, six feet or more high. Both are indispensable to the garden, and both are prone to the Lily disease, as is also *L. testaceum* (excelsum), the Nankeen Lily (Fig. 43). These should be sprayed fortnightly with sulphide of potassium, one ounce to two gallons of water, from early June till flowering begins.

Lily of the Valley.—See *Convallaria*.

Linum (*Flax*)—These are chiefly of graceful habit. *Austriacum*, *narbonense* and *perenne* have sky-blue flowers, and are one-and-a-half feet high. *Campanulatum* and *flavum* are yellow, dwarfer and more bushy. All succeed in loamy soils and are easily raised from seeds.

Lobelia (*Cardinal Flower*).—The herbaceous *Lobelias* are of great utility and beauty, and flower in late summer and autumn. The varieties of *cardinalis* are



Fig. 43.—THE NANKEEN LILY IN A BED OF RHODODENDRONS.



Fig. 44.—MADONNA LILIES EFFECTIVELY PLANTED BY A LOFTY PERGOLA.

characterised by green foliage; those of *fulgens* by leaves of a bronzy crimson colour. Both have flowers of exceeding brilliancy, scarlet, vermilion, crimson-scarlet and the like. We have no other hardy garden flowers of such exceeding richness and vividness of colour. Huntsman, Firefly, Gloire de St. Anne's and Queen Victoria are distinctive forms of *L. fulgens*, four to six feet high. In nature *cardinalis* is a true bog plant, the other species delighting in wet or moist soils. *L. syphilitica* is also moisture loving. Its flowers are purple, blue or violet. *L. Gerardi* is a hybrid of much value, between *fulgens* Queen Victoria and *syphilitica*. These are three to four feet high. Careful division in spring, and seeds.

Lupinus (*Lupine*).—*L. polyphyllus* and its white and rose varieties are among the finest of hardy plants, distinct of leaf and handsome of flower. Height five to six feet; flowers early summer. Easily increased by seeds and by division. The type has several other varieties. *Nootkatensis* is a much dwarfer species, two feet or rather more, and flowers in May and June. It is amenable to the same treatment.

Lychnis (*Campion*).—The single scarlet *Lychnis chalconica*, three to four feet, is, undoubtedly, the finest of this group. Easily raised from seeds, and meriting the attention of all. Its double varieties, scarlet and white, must be increased by division or heel cuttings in spring (see page 63). The last is of poor quality. For garden purposes *Bungeana*, *grandiflora*, and *fulgens* have much in common, and might possibly prove to be geographical variations of one species. Those cultivated as *Haageana* are practically identical with the first of these. Flowers large, scarlet, white or rose-pink, in terminal clusters on plants one to three feet high. They incline to tuberous roots, and slugs are very fond of them (see Pests, Chapter XI.). *Coronaria*, or "Crowned Campion," two feet high, is a showy border plant. Seeds. *L. vespertina plena* (*alba plena*), double white Campion, three feet, is best increased by early spring cuttings.

The varieties of *Viscaria* may be increased by cuttings and division, both in early spring. Height one-and-a-half feet. Heel cuttings only should be employed.

Meconopsis (*Himalayan Poppy*).—It was no part of my original intention to touch upon plants of biennial duration only, though it is departed from here because of the exceptional beauty of two species, viz., *M. integrifolia* from the China-Thibet borderland, and *M. Wallichii* of the Himalayas. Both occur at great altitudes, 11,000 to 15,000 feet, and are much esteemed. The first has great saucer-like flowers, coloured pale yellow. Height two feet. The other has a noble pyramid of pale blue flowers, six feet high. Essential cultural items are rich vegetable soils and quick growth from the seedling stage onwards. Sow the seeds within a month of ripening in a temperature of 45 degrees. Cold frame treatment is often dangerous. Long keeping of the seeds in the dry state may be fatal to success. Don't coddle; treat liberally. Don't bury the seed. Fine sand of the thickness of a shilling will be ample.

Monarda (*Bergamot*).—Fragrant of leaf and brilliant of flower, the Oswego Tea, *M. didyma*, should be grown by all. Cambridge Scarlet is a good form of it. Height two-and-a-half feet. Good garden soil anywhere. Division to any extent, also cuttings.

Montbretias or Tritonias.—The modern improvements of these bring them into the front rank of early autumn border flowers. They are also valuable in the cut state. The old way of retaining the plants permanently in the border was wrong. Infinitely better results follow lifting in autumn and replanting strong single corms in March. Give them a warm position and rich, well-drained soils. In their warm shades of orange-red and crimson they are unique. Prometheus, Norvic, Lord Nelson, King Edmund, George Davison, Westwick, and Star of the East are some of the best. All are delightful in beds or borders.

Narcissus (*Daffodil*).—It is hoped to deal more or less exhaustively with these in a separate volume to be published later.



Fig. 45.—THE ASIATIC BELL-FLOWER, *OSTROWSKIA*
MAGNIFICA.



Fig. 46.—ORIENTAL POPPY JENNY MAWSON.

Nymphæa (*Water Lily*).—These, like the Daffodils, merit a volume alone, so indispensable are they to the ornamentation of lake or pond. They afford, indeed, life and character to the surface of the water, and are a great charm through summer and autumn. The best way to plant is to secure their roots (rhizomes) in baskets of rich soil, and sink them into position. Varieties may be obtained suitable for deep or shallow water. March and April are good times for planting. Division. Seeds.

Oenothera (*Evening Primrose*).—The best of the prostrate or trailing growers are *acaulis*, *cæspitosa* (*marginata*), and *missouriensis*. The former have white, pink touched, fragrant flowers; the latter pale yellow. *Fruticosa*, *Youngii* and *glaucæ*, yellow; *speciosa*, white, and its variety *rosea*; display a slight sub-shrubby tendency. These are day bloomers. Border soil, cuttings and division in spring.

Onopordon (*Cotton Thistle*).—Majestic, thistle-like plants, suitable for the wild garden. *Acanthium* is the Scotch Thistle. *Bracteatum* and *polycephalum* are giants of eight feet high; silvery foliage and rosy purple flower heads. Seeds. Plant seedlings early.

Ostrowskia (*Asiatic Bell-flower*).—A noble plant with fleshy, brittle, carrot-like roots that descend deeply in the earth; hence large plants require handling with the greatest care. Requires a warm situation and loamy soil interspersed with old mortar. The giant flowers are about six inches across and are pale mauve and white (Fig. 45). Raise from seeds and plant early in permanent positions.

Pæonia.—See page 42.

Papaver (*Poppy*).—The eastern Poppy and its allies are a great race, the colours brilliant or gorgeous in the extreme. They are deep tap-rooted subjects, well suited to the border and of easy culture. Raise from seeds or by root cuttings in the case of selected varieties. Prince of Orange, Mrs. Marsh, Queen Alexandra, Lady Roscoe, Beauty of Livermere, Jenny Mawson (Fig. 46), and *Mephistopheles* are good sorts,

Pentstemon (*Beard Tongue*).—Apart from those referred to under florists' flowers, p. 52, are numerous species, of which *barbatus*, and its variety *Torreyi*, scarlet, are among the most decorative. Height four to five feet. Other valuable kinds are *confertus*, var. *cœrulea purpurea*, *Azureus*, glaber, violet-blue; *heterophyllus*, bright blue; and *cobœa*, dark lilac, three feet high. Not a few of the handsomest of the species, natives of California, are insufficiently hardy in this country. All are increased readily by soft cuttings in spring, and by seeds.

Phlox.—See page 48.

Phygellus (*Cape Figwort*).—This brilliant flowered plant, *P. capensis*, grows some three or four feet high, the pendent scarlet flowers being borne freely on branching racemes. The plant loves sun-heat and drought, and may be given the hottest position of the garden, viz., adjacent to a south wall. Near the sea it forms bushes sub-shrubby in character, and is highly ornamental. In northern districts it is often cut to the ground by frost. Soft cuttings in spring root readily. Division is quite easy.

Physalis (*Winter Cherry*).—For many years we were content with the original species *P. Alkekengi*, which is now almost replaced by the hybrid *Bunyardi* (*Alkekengi* × *Francheti*) and by the Japanese *Francheti*, a modern introduction. The flowers are insignificant, greater value being attached to the brilliant, orange-red, bladder-like calyces or "Lanterns," so much in vogue in winter decoration. Seeds and division to any extent.

Phytolacca (*Virginian Poke*).—*P. decandra* is a fine plant for shrubbery or woodland, and is six to ten feet high. The flowers are at first white, then rose coloured, on cylindrical spikes, and are succeeded in autumn by dense clusters of blackish-purple fruits. Seeds.

Platycodon (*Chinese Bell Flower*).—Handsome late summer and autumn-flowering perennials, allied to the Bell-flowers (*Campanula*); from one foot to two feet high.

The taller ones require a little support early to prevent their falling about. All are varieties of the Chinese *grandiflorum*, which has violet-blue flowers. *Album* is nearly white ; *Mariesii* is deep blue and dwarf. Careful division in spring, though seeds are much the best.

Polemonium (*Jacob's Ladder*).—*P. humile* Richardsonii is perhaps the most effective of the blue-flowered border kinds. Height two feet. *Cœrulea* is also blue,



Fig. 47.—An Old Polyanthus Plant ready for Division.

and *album* is white flowered. *Confertum* variety *mellitum*, creamy white, is suitable for the rock garden. *Flavum* is washed out yellow. Seeds and division.

Polygonatum (*Solomon's Seal*).—The common species is multiflorum ; the most ornamental is *latifolium* and its variety *commutatum*. *P. racemosum* is highly ornamental and somewhat scarce. Valuable for woodland shade and forcing for conservatory decoration. Height three to four feet. Arching stems of creamy white, drooping fragrant flowers.

Polygonum (*Knot-weed*).—The strong growers, *cuspidatum* and *sachalinense*, are fine woodland plants; *Baldschuanicum* is a lovely shrubby climber; the dwarfer species are best in the rock garden.

Potentilla (*Cinquefoil*).—The best border sorts are the florists' varieties, which, at flowering time, are two feet high or more. The plants have a tufted leaf growth like the Strawberry, succeed well in cultivated garden soils, are readily increased by division in spring and by heel



Fig. 48.—*Divided Portions ready for Planting.*

cuttings at the same period. These cuttings should be inserted in a cold frame; heat is opposed to their well being. California and Dr. Andre are yellow; Louis Van Houtte, chestnut red; Mars, maroon; Victor Lemoine, vermilion and yellow; Wm. Rollison, scarlet, shaded orange. All are semi-double.

Primula (*Primrose*).—The vast majority of the species are good rock garden plants, the best border sorts (apart from the Polyanthuses, which should find a place in every garden, and which are so easily raised from seeds sown in spring or late summer, or by division of old plants after flowering) (Figs. 47 and 48) being the forms

of *denticulata*, which include *cashmeriana*, *Sieboldi* (*cortusoides* of catalogues), *pulverulenta*, *rosea*, and *japonica*. The first-named are content in rich border soils; *Sieboldi* revels in moisture and richly manured soils in sun or shade; *pulverulenta*, three to four feet high, is a grand bog garden plant; while *rosea* and *japonica* revel in rich soils in shady moist places or where their root fibres just reach to the water's edge. Where moisture is not at hand its near equivalent, shade, should be regarded as essential. With the exception of *Sieboldi* varieties, which are best increased by division after flowering, all the others may be raised from seeds, which, if sown soon after ripening, vegetate freely. The seeds should be covered very lightly with soil. Self-sown seedlings often come up in hundreds near the plants without any covering being afforded. This lesson should not be ignored. All the *Primulas* may be increased by root cuttings (see page 67).

Pulmonaria (*Lungwort*).—These are worthy plants, because of their early spring effects of leaf and blossom. They succeed in any good garden soil. The best are *angustifolia azurea*, and *arvernense*, which are blue-flowered, and of much merit. *Saccharata* has rose flowers and mottled leafage. Height one foot. Readily increased by division after flowering.

Pyrethrum.—See page 53.

Ranunculus (*Buttercup*; *Crowfoot*).—The Fair Maids of France (*R. aconitifolius* fl.-pl.) is the best border kind. It is tuberous rooted and about two feet high. Delights in rich moist ground. Flowers in early summer. The Persian and other *Ranunculi* of the florists, *R. asiaticus*, are rich in colour variety and valuable in masses or beds. The double flowers are very formal looking, and were much esteemed by the old florists. In light soils, plant in November; in heavy soils, in early spring (February and March). The tubers are quite small, and should not be buried more than two inches. They require lifting each year. The typical species of Palestine has brilliant scarlet flowers.

Rheum (*Rhubarb*).—The best of these—*R. palmatum*, *R. p. rubriflorum*, whose inflorescence is wholly coloured red, *R. p. tanghuticum*, *R. Emodi*, and *R. nobile*—vie with the *Ferulas*, *Heracleums* and others in their bold picturesque aspect of leaf and flower, and like these are eminently fitted for isolation, wild garden, or shrubbery.



Fig. 49.—A Root Cutting of Romneya Coulteri that has started growing. It may be cut into lengths at the white bands for Propagation.

Height six to eight feet. Seed and division in autumn or spring. Owing to their great leaf spread ample space should be given.

Rodgersia (*Bronze Leaf*).—Handsome in foliage and flower, and most effective in their autumn tints. Good water-side plants in light shade. *Podophylla* is the best

known ; it has noble leafage and creamy panicles of flowers. *Esculifolia*, horse chestnut-leaved and pink flowers ; *pinnata*, rosy crimson ; and *p. alba*, white, are all excellent. Division in autumn and spring, and by seeds.

Romneya (*Californian Bush Poppy*).—*R. Coulteri* in its fullest splendour is a glorious plant. In nature it is almost of shrubby habit, and near the sea or a few miles inland does well thus. In other places it is cut down by frost, or the knife. Loves warmth, light well-drained soils, and old mortar. A sheltered corner or near greenhouse wall suits it admirably. The fine glaucous leaves are in good contrast with the huge glistening white flowers, which are delicately fragrant. Division, seeds when available and root cuttings (Fig. 49).

Rudbeckia (*Coneflower*).—Showy border and woodland plants of the easiest culture. *Speciosa* (*Newmannii*), *hirta*, and *sub-tomentosa* are the best of those growing two feet or so high, while *laciniata* Golden Glow, *l.* Golden Ball, double flowered ; and *lævigata* (Autumn Glory), single, are desirable among those growing five to six feet high. The former set are single, flower-heads yellow with black disc or cone. *R. purpurea* is referred to *Echinacea*. *Maxima* has great glaucous leaves distinct from all. The plant is six feet high. *Californica* is also a majestic kind, having the largest flower-heads of all. *Laciniata* is from six to ten feet, with much divided leaves. Division in spring and seeds.

Saxifraga (*Rockfoil*).—The great inimitable wealth of this genus belongs to the rock garden ; good border sorts are few and far between. The *Megaseas*—*crassifolia*, *cordifolia*, and *ligulata*, with their following—are exceptions, and are well suited for forming bold belts to plantings of shrubs. These are highly ornamental, too, in the rock garden. The best of these are *cordifolia purpurea*, and *ligulata speciosa*. They are hardy, vigorous, and free, and while among the most accommodating, whether in dry or moist soils, revel in rich soils anywhere. They are valuable for their permanent

leafage and good garden effect. The double meadow Saxifrage, *S. granulata* fl.-pl., is at home in moist soils ; *peltata* is grand in half-boggy places ; while many of the mossy sorts are good and effective as edgings. All are increased readily by division in spring or late summer.

Scabiosa (*Scabious*).—The only perennial species calling for notice is *S. caucasica*, whose mauve-blue flower-heads are freely produced on plants three to four feet high in July and August. There is a white variety, and both are excellent in the cut state. The type is very popular with florists and gardeners. Raise from fresh seeds ; it is the only rational way.

Scizostylis (*Winter Gladiolus*, *Kaffir Lily*).—If *S. coccinea*, a remarkable plant, were treated somewhat after the manner recommended for *Montbretia*—*i.e.*, lifted and protected in winter and planted out singly in spring—it would do far better than is usually seen. Flowers in November. Rich moist soils.

Sedum (*Ice-plant*).—*S. spectabile* and its variety *atropurpurea* are the best for border work, forming flatish corymbs of pink and rose coloured flowers respectively. In opposition to the reputed requirements of the genus, these attain their greatest vigour—three feet or more—in moist clay soils. Division in spring.

Senecio (*Ragwort*, or *Groundsel*).—The border kinds of merit here are *S. Doronicum*, two feet, golden yellow, spring ; and *S. pulcher*, three feet, purplish crimson August. The first divides with ease, and both may be increased abundantly from root cuttings. *Clivorum*, *japonica*, *Veitchianus*, and *Wilsonianus* are bog-loving species, and quite handsome if rightly placed. These have yellow flower-heads. Seed and division. Easily cultivated. *S. pulcher* requires sandy, well-drained loam.

Sidalcea (*Greek Mallow*).—Those of the highest garden value are *candida*, *Listeri*, *malvæflora* and *Rosy Gem*. The plants are about four feet high. *Listeri* has fringed flowers of considerable beauty. Easily grown in border soil in any position. Seeds, spring division, and cuttings.

Solidago (*Golden Rod*).—These are not of high merit though useful in shrubbery and woodland. Succeed in any soil, and increase rapidly at the root. Too voracious for the choice border, although effective in late summer and autumn. *Virgaurea cambrica* (*nana*) is a pretty and dwarf sort. *Golden Wings*, *Canadensis*, and *Shortii* are four to five feet; all have yellow plume-like inflorescences. Division spring or autumn.

Spiræa (*Meadow Sweet*).—All the Meadow Sweets love moisture, and grow with vigour and freedom. Generally speaking, they are grand water-side plants, ranging from two feet high in *filipendula* to eight feet in *gigantea*. *Aruncus* (*Goat's Beard*) is a noble plant four to five feet high and through, with creamy white plumes. *A. plumosus* is a good form of it. *Astilboides* and *floribunda* have feathery panicles of white. *Gigantea* and its variety *rosea* are among the boldest and most desirable. *Palmata*, with rosy red flowers, is unique anywhere, while the forms of *venusta*, in pink and deep pink, are among the most attractive. Rich soils and moisture. Division when dormant.

Statice (*Sea Lavender*).—The finest of all is *latifolia*; its mound-like tufts of countless blue flowers often measure two-and-a-half feet across. The plant attains two feet or more high, its flower stems springing from a prostrate rosette of leaves close to the surface. Certainly one of the best late autumn flowering perennials. Invaluable for cutting, and when dried one of the best of so-called "everlastings." Easy of culture in ordinary soil. Seeds and root cuttings are the best methods of increase. *Incana*, *Limonium*, and *Gmelini* are dwarfer growing kinds of lesser value, though pretty.

Stokesia (*Stoke's Aster*).—The typical kind, *S. cyanea*, is usually too late in flowering to be of service, while its variety *praecox*, coming in August, is invaluable. The flower-heads are deep lavender blue on branching stems, fifteen to eighteen inches high, and are like a giant Aster. There is a good white form. The plant is almost impossible to increase by division, but may be



Fig. 50.—THE LARGE-FLOWERED WOOD LILY, *TRILLIUM GRANDIFLORUM*.

increased to any extent by root cuttings, and by seeds when procurable.

Thalictrum (*Meadow Rue*).—The best border sorts are the varieties of *T. aquilegifolium*, which have a graceful habit of growth. These plants depend upon the plume-like character of their filaments and anthers for their display, the sepals early falling away. In *Delavayi* and *diptercarpum*, recent additions from China, the lilac and blue sepals remain and make a goodly show in conjunction with the anthers. *Petaloidium* is of this class, too, but with white sepals; all are elegant of leaf. Sandy loam. Division and seeds.

Thermopsis.—Two species, fabacea, two-and-a-half feet, whose leaves are clothed with silky hairs, and *montana*, three to five feet, are most usually met with, and both have yellow, Pea-shaped flowers. Vigorous perennials of easy culture, flowering in early summer. Seeds and division.

Tiarella (*Foam Flower*).—A delightful tufted plant of a foot high, with pinky buds and starry cream-coloured flowers on erect spikes. For the front of the border, in cool and deep soil, it is charming. As a choice exhibition plant it is one of the best. Easily increased by division in spring.

Trillium (*Wood Lily, Trinity Flower*).—Where a peaty bog bed has been made for the hardy Lady's Slippers (*Cypripedium*), there will these "Wood Lilies" make their happiest home (Fig. 50). In short, their chief needs are wood shade, rich vegetable soils, and moisture. To such essentials might I add the equally great one of "once planted let them alone." *Grandiflorum*, *g. roseum*, white and rose; *erectum*, purple; *erythrocarpum*, white, blotched crimson; sessile, intense purple; *s. californicum*, white and purple; and *s. Snow Queen*, are the best. Height nine to eighteen inches. Flowers in April and May. Plant in autumn. Seeds.

Tritoma.—See *Kniphofia*.

Tritonia.—See *Montbretia*.

Trollius (*Globe Flower*).—Showy and handsome, moisture-loving herbaceous perennials of about three feet high. They are easily cultivated in rich border soils, and give no trouble whatever. They are great rooters and plenty of soil should be within reach. The Asiatic kinds usually have orange flowers; the Europeans, pale yellow flowers. The first includes *Fortunei* and *chinensis*, which have somewhat open flowers, while the latter includes such bold growing sorts as *napellifolius*, *Orange Globe*, and *Newry Giant*. All submit readily to division of the root-stock in spring or autumn. Flowers in May and June.

Tropæolum (*Nasturtium*).—*T. speciosum* is the "Flame Flower," with Bindweed-like roots, elegant and graceful leafage, and brilliant vermilion flowers in late summer. In parts of Scotland and the East Coast the plant is virtually a weed, growing best, perhaps, in sandy, heath-like soils, and in a north aspect. Sometimes, too, it is just as much at home in loamy soils, and in both forms curtains of growth a dozen or eighteen feet high. Prefers a cool north aspect and the companionship of Holly or Yew. Plant in spring. *T. polyphyllum* produces trails of glaucous foliage and yellow flowers. It is tuberous rooted. Good for rockery. The roots descend deeply, and shoots appear a yard away from the original place of planting. Best in a restricted root area, with biennial planting when dormant. Division of the tubers; seeds. Flowers in June.

Verbascum (*Mullein*).—The noblest of these plants—*olympicum*, *pannosum*, *phlomoides* and others—are best if regarded from the biennial point of view; thus treated, they are giants indeed. The great rosettes of leaves of some reach to nearly a yard across. Those named are yellow flowered, six to eight feet high, and most effective. Recently showy bronze-coloured hybrids have arisen, such as *Caledonia*; *Harkness'* hybrid, yellow; and *Miss Willmott*, white. June-August. Seeds, winter sown. Plant in April and May.

Veronica (*Speedwell*).—The only species worthy of serious thought here is *subsessilis*, from Japan, and this is a plant for every garden. Height two to three feet ; ample dark green foliage, and intense royal purple flowers on long spikes. It attracts all who see it. Vigorous habit and free blooming. Alongside this the other border kinds are comparative weeds, mostly deficient in colour. That named is a great plant. Increases readily by soft cuttings at any time, and by division in spring. Flowers August and September.

Viola (*Tufted Pansy*).—No garden is complete without these fresh, cool-looking carpeters of the soil. They embrace white, cream, yellow, gold, purple, violet, crimson, and other shades of colour. May be planted in April or October. Always, however, from freshly rooted cuttings, *not* worn-out, divided stock. They delight in cool, deep, well-enriched soils, and well grown, no praise is too great for them. In not a few districts the finest effects are secured from two-year-old plants. Then are they great indeed.

PART III.

HARDY FLOWERS FOR VARIOUS PURPOSES.

(A Selection of the Finest Herbaceous Perennials.)

| NAME. | COLOUR, AND TIME OF FLOWERING. | HIGHT. FEET. |
|--|--------------------------------------|-----------------|
| <i>Achillea alpina</i> | White ; July | 2 |
| „ <i>Eupatorium</i> | Yellow ; August | 4 |
| „ <i>Ptarmica</i> The Pearl . . | White ; July, August | 2½ |
| „ „ Perry's White | July, August | 2½ |
| <i>Aconitum Fischeri</i> | Blue ; Sept. | 2½ |
| „ <i>Wilsonii</i> | Rich Blue ; Sept. | 5-6 |
| <i>Adonis amurensis</i> | Yellow ; March | 1 |
| „ „ fl.-pl. . . . | Yellow ; March | 1 |
| „ <i>vernalis</i> | Yellow ; April | 1 |
| <i>Anchusa italica</i> , Dropmore var. . | Blue ; June, July | 4-6 |
| „ „ Opal | Pale Blue ; June, July | 4-6 |
| <i>Anemone alpina</i> | Pale Blue ; May | 2 |
| „ <i>Hepatica</i> , in variety . . | Red, White, Blue ; Spring | ½ |
| „ <i>japonica</i> (all vars.) . . | Red, White ; July, August | 4 |
| „ <i>sylvestris grandiflora</i> . . | White ; May | 1½ |
| <i>Anthericum Liliastrium major</i> . . | White ; May, June | 2 |
| <i>Aquilegia chrysantha</i> | Yellow ; July | 3-4 |
| „ <i>coerulea</i> hybrids, various . . | July, August | 2-3 |
| <i>Aster Amellus</i> , all varieties . . | August | 2 |
| „ <i>acris</i> | Blue ; August | 2½ |
| „ (Michaelmas Daisies) various . . | — | — |
| <i>Astilbe Ceres</i> | Rose ; August | 3 |
| „ <i>Queen Alexandra</i> | Pink ; August | 3 |
| „ <i>Snow Plume</i> | White ; August | 3 |
| <i>Campanula carpatica alba</i> | White ; Sept. | 2 |
| „ <i>Riverslea</i> | Blue ; Sept. | 1 |
| „ <i>White Star</i> | White ; August, Sept. | 1 |
| „ <i>persicifolia alba</i> <i>grandiflora</i> | White ; July | 2½ |

| NAME. | COLOUR, AND TIME OF FLOWERING. | HGHT. FEET. |
|--|--------------------------------------|----------------|
| <i>Campanula persicifolia</i> alba fl.-pl. | White ; July | 2½ |
| „ <i>Van Houttei</i> . . . | Blue ; July, Aug. | 2½ |
| <i>Centaurea montana</i> rubra . . . | Red ; June | 2 |
| <i>Chelone barbata</i> | Scarlet ; | 4 |
| „ <i>coccinea</i> | July, September Deep Scarlet ; | 4 |
| „ <i>Torreyi</i> | Coral Red ; | 4 |
| <i>Chrysanthemum maximum</i> vars. . | White ; Summer | 3 |
| <i>Coreopsis grandiflora</i> | Yellow ; Summer | 2½ |
| „ <i>lanceolata</i> | Yellow ; Summer | 2½ |
| <i>Delphiniums</i> , various | June, July | 4-8 |
| <i>Doronicum plantagineum</i> excelsum | Yellow ; Spring | 3 |
| <i>Echinops</i> Ritro | Blue ; | 4 |
| „ <i>July, August</i> | | |
| <i>Erigeron Quakeress</i> | Pale Blue ; | 2 |
| „ <i>July, October</i> | | |
| „ <i>speciosus superbus</i> | Blue ; | 2½ |
| „ <i>July, September</i> | | |
| <i>Eryngium amethystinum</i> | Blue ; August | 3 |
| <i>Funkia Sieboldi</i> | Bluish ; August | 2 |
| „ <i>subcordata</i> | White ; August | 2 |
| <i>Gaillardias</i> , in variety | Crimson & Gold ; Summer | 3 |
| <i>Galega</i> , His Majesty | Blue & White ; July, August | 4 |
| <i>Geum chiloense</i> Mrs. J. Bradshaw | Scarlet ; Summer | 2 |
| „ <i>Heldreichi superbum</i> | Orange & Crimson ; Summer | 2 |
| <i>Helenium</i> , in variety | Yellow ; Summer | 4 |
| <i>Helianthus</i> (Sunflower) | Yellow ; August, Sept. | 4 |
| <i>Hemerocallis</i> (Day Lily) <i>aurantiaca</i> | | |
| „ <i>major</i> | Orange ; August | 2½ |
| „ <i>Dr. Regal</i> | Orange ; August | 2½ |
| „ <i>Dumortieri</i> | Yellow & Red ; June | 2 |
| „ <i>flava</i> | Yellow, June | 2½ |
| <i>Heucheras</i> , in variety | July, September | 2½ |
| <i>Incarvillea Delavayi</i> | Rose ; June | 3-4 |
| <i>Iris</i> , a great variety | — | — |

| NAME. | COLOUR, AND TIME OF FLOWERING. | HGHT. FEET. |
|---------------------------------------|---|----------------|
| Kniphofia John Benary . . . | Scarlet ; Sept. | 5 |
| „ aloides glaucescens . . . | { Scarlet and Vermilion Aug., Sept. } | 6-8 |
| „ „ grandiflora . . . | | |
| „ „ nobilis . . . | | |
| Lathyrus latifolius The Pearl . . . | White ; July, September | 6-8 |
| Liatris graminifolia Dubia . . . | Rose Purple ; August | 6 |
| Lobelia cardinalis . . . | Vermilion ; Aug. | 4 |
| „ fulgens Queen Victoria . . . | Vermilion ; Aug. | 4 |
| „ Fire Fly . . . | Scarlet ; August, Sept. | 5 |
| Lychnis chalconica . . . | Scarlet ; July | 3 |
| Monarda didyma . . . | Scarlet ; July | 2½ |
| „ „ Cambridge Scarlet . . . | July | 2½ |
| Pæonies, in variety . . . | June | 2-3 |
| Papaver (Poppy), in variety . . . | June | 2-3 |
| Phlox (Herbaceous) in variety . . . | July, August | 2-4 |
| Physalis Bunyardii . . . | August, Sept. | 3 |
| „ Franchetii . . . | August, Sept. | 3 |
| Platycodon grandiflorum . . . | Fine Blue ; July, Sept. | 2 |
| Primula Sieboldii, various . . . | Spring | 1½ |
| „ pulverulenta . . . | Crimson ; June | 3 |
| Pyrethrum, in variety, double . . . | June | 2½ |
| „ „ single . . . | June | 2½ |
| Rudbeckia laciniata Golden Glow . . . | August | 5 |
| „ lævigata . . . | Yellow ; August | 5 |
| „ speciosa . . . | Yellow ; July, August | 2 |
| Scabiosa caucasica . . . | Mauve ; July, August | 3 |
| „ „ alba . . . | White ; July, August | 3 |
| Saxifraga cordifolia purpurea . . . | Reddish ; May, June | 2 |
| „ ligulata speciosa . . . | Reddish ; May, June | 2 |
| Sedum spectabile . . . | Pink ; August | 2 |
| „ „ atropurpureum . . . | Rose ; August | 2 |

| NAME. | COLOUR, AND TIME OF FLOWERING. | HGHT. FEET. |
|--|--------------------------------------|----------------|
| <i>Spiræa astilboides</i> | White ; July | 3 |
| „ „ <i>floribunda</i> | White ; July | 3 |
| „ „ <i>palmata</i> | Crimson ; July | 3 |
| <i>Statice latifolia</i> | Blue ; August, Sept. | 2 |
| <i>Stokesia Cyanea præcox</i> | Blue ; July, August | 1½ |
| <i>Thalictrum aquilegifolium</i> | Cream ; June | 2 |
| „ „ „ <i>purpureum</i> | Purple ; June | 2 |
| „ „ „ <i>roseum</i> | Rose ; June | 2 |
| „ „ <i>Delavayi</i> | Lilac Blue ; July, August | 4 |
| „ „ <i>diptercarpum</i> | Violet ; July, August | 4-5 |
| <i>Tiarella cordifolia</i> | White ; May, June | 1 |
| <i>Trillium grandiflorum</i> | White ; April, May | 1 |
| <i>Trollius Fortunei</i> & Orange Globe | Orange ; June | 2½ |
| <i>Tropæolum speciosum</i> | Scarlet ; August, Sept. | Climber |
| <i>Veronica subsessilis</i> | Intense Violet ; August, Sept. | 2½ |

THE BEST BULBOUS AND TUBEROUS ROOTED PLANTS.

| NAME. | COLOUR, AND TIME OF FLOWERING. | HGHT. FEET. |
|--------------------------------------|--------------------------------------|----------------|
| <i>Anemone blanda</i> | Blue ; Spring | ½ |
| „ „ „ <i>scythica</i> | White & Blue ; Spring | ½ |
| „ „ „ <i>coronaria</i> vars. | Blue, White, Rose ; Spring | 1 |
| „ „ „ <i>St. Brigid</i> | All Colours ; Spring | 1 |
| „ „ „ <i>fulgens</i> | Scarlet ; Spring | ¾ |

| NAME. | COLOUR, AND TIME OF FLOWERING. | HGHT. FEET. |
|---|--------------------------------------|-------------------|
| Camassia Leichtlinii . . . | Cream ; August | 3 |
| „ „ atrocaerulea . . . | Blue ; August | 3 |
| Chionodoxa gigantea, Luciliæ and sardensis . . . | Blue ; Spring | $\frac{1}{2}$ |
| Colchicum speciosum . . . | Rose ; Sept. | 1 |
| „ „ album . . . | White ; Sept. | 1 |
| „ „ rubrum . . . | Reddish ; Sept. | 1 |
| Crinum Powellii . . . | Rose ; August, Sept. | 3 |
| „ „ album . . . | White ; August, Sept. | 3 |
| „ „ yemense . . . | White ; August, Sept. | 3 |
| Crocus, species and varieties . . . | Spring | — |
| Cyclamen (hardy), any . . . | Spring & Autumn | $\frac{1}{2}$ |
| Eranthis cilicica . . . | Yellow ; Winter | $\frac{3}{4}$ |
| „ hyemalis . . . | Yellow ; Winter | $\frac{3}{4}$ |
| Eremurus, any (see page 91). | | |
| Erythronium, any . . . | Spring | $\frac{1}{2}$ |
| Fritillaria imperialis, vars., all . . . | — | 3 |
| „ „ chitralensis . . . | Yellow ; March | 2 |
| „ meleagris, vars. . . | April | 2 |
| Galanthus (Snowdrop) . . . | White ; Winter | $\frac{1}{2}$ |
| Gladiolus, a great variety . . . | July, August | $1\frac{1}{2}$ —3 |
| Hyacinthus amethystinus . . . | Blue ; May | $\frac{3}{4}$ |
| Hyacinths (Bedding), various . . . | Spring | 1 |
| Iris, English, in variety . . . | June, July | 2 |
| „ Spanish „ . . . | June, July | 2 |
| Ixiolirion montanum tartaricum . . . | Deep Blue ; May, June | $1\frac{1}{2}$ |
| „ Pallasii . . . | Rich Blue ; May, June | $1\frac{1}{2}$ |
| Lilium auratum platyphyllum . . . | White & Crimson ; August | 5 |
| „ Batemanii . . . | Apricot ; August | $2\frac{1}{2}$ |
| „ Brownii . . . | White & Choco- late ; July | $2\frac{1}{2}$ |
| „ candidum speciosum . . . | White ; July | 6 |
| „ chalconicum . . . | Scarlet ; July | $2\frac{1}{2}$ |
| „ „ Heldreichii . . . | Scarlet ; July | $2\frac{1}{2}$ |

| NAME. | | COLOUR, AND TIME OF FLOWERING. | HIGHT. FEET. |
|------------------------------|---------------------------|--------------------------------------|-----------------|
| Lilium | Dalhansonii . . . | Dark ; June | 5 |
| „ | Dauricum . . . | Yellow & Red ; June | 2½ |
| „ | excelsum . . . | Nankeen Yellow ; July | 4 |
| „ | Hansonii . . . | Golden ; July | 4 |
| „ | Henryi . . . | Orange ; August, Sept. | 6 |
| „ | Martagon dalmaticum . | Nearly Black ; July | 5-6 |
| „ | monadelphum . . . | Yellow ; July | 4 |
| „ | pardalinum, any vars. . | July, August | 4-6 |
| „ | pomponium . . . | Scarlet ; June | 2½ |
| „ | „ verum . . . | Scarlet ; June | 3½ |
| „ | speciosum album Kraetzeri | White ; August, Sept. | 4-6 |
| „ | „ „ novum . | White ; August, Sept. | 4-6 |
| „ | „ macranthum . | Rose ; August, Sept. | 4-6 |
| „ | „ melpomene . | Crimson ; August, Sept. | 4-6 |
| „ | „ magnificum . | Crimson ; August, Sept. | 4-6 |
| „ | Thunbergianum, in vars. . | — | — |
| „ | tigrinum (any) . . . | — | — |
| „ | umbellatum (any) . . . | — | — |
| Montbretia | Prometheus . . . | Orange & Crimson August, Sept. | 3 |
| „ | Star of the East . | Orange Yellow ; August, Sept. | 3 |
| Muscaria | conicum . . . | Blue ; May | 1 |
| „ | „ Heavenly Blue | May | 1 |
| Narcissus (Daffodils), | a great variety | Spring | 1-2 |
| Orchis | foliosa . . . | Purple ; May, June | 2 |
| Puschkinia | libanotica . . . | Blue & White ; Spring | ½ |
| Ranunculus | asiaticus, in variety . | May, June | 1½ |
| Tulips of all sections . . . | | March, May | ½-3 |

HARDY FLOWERS THAT BLOOM IN SPRING.

| | |
|----------------------------|-------------------------------|
| Adonis amurensis | Fritillarias, of sorts |
| " " fl.-pl. | |
| " " vernalis | |
| Allium neapolitanum | Galanthus (Snowdrop) |
| Alyssum saxatile | Gentiana acaulis |
| Anemone alpina | " verna |
| " apennina | Helleborus (Lenten Roses) |
| " coronaria, in variety | Hepatica (see Anemone |
| " fulgens | Hepatica) |
| " Hepatica in variety | |
| " nemorosa Robin- | Iris nudicaulis |
| sonii | " pumila |
| " nemorosa Allenii | |
| " pulsatilla | Muscarias (all the kinds) |
| " ranunculoides | |
| " sulphurea | Narcissus (a great variety) |
| " sylvestris | |
| " " grandiflora | Omphalodes verna |
| Arabis alba fl.-pl. | Orobus vernus |
| Aubrietias (all vars.) | |
| Bulbocodium vernum | Phlox divaricata |
| Chionodoxa, all kinds | " canadensis, Perry's var. |
| Crocuses, in great variety | Primula, many species and |
| Cyclamen Coum vars. | vars., including Polyanthus |
| Cypripedium Calceolus | Pulmonaria angustifolia |
| " pubescens | " " azurea |
| | " arvernense |
| Dicentra eximia | " saccharata |
| " spectabilis | |
| Doronicums, all | Saxifraga, a large number |
| Epimediums, of sorts | Scilla, all kinds |
| Erythroniums (Dog's Tooth | |
| Violet) | Trillium, all the kinds |
| | Tulipa, species and varieties |

HARDY FLOWERS THAT BLOOM IN SUMMER.

| | |
|-----------------------------|-----------------------------|
| Achillea alpina | Anchusa italica, Dropmore |
| " Eupatorium | var. |
| " mongolica | " " opal |
| " Ptarmica, The Pearl | Androsace lanuginosa |
| " " Perry's White | Anemone japonica, all vars. |
| Alstroemeria aurantiaca | Anthemis Triumphetti |

- Anthericum liliastrum major
 Aquilegia, of sorts
 Armeria plantaginea rubra
 Aster subcœruleus
 Astilbes, all the kinds
 Campanulas, a great variety
 Centaurea montana rubra
 Chelone barbata coccinea
 " " Torreyi
 Chrysanthemum maximum,
 in variety
 Cimicifuga cordifolia
 " racemosa
 " simplex
 Coreopsis grandiflora
 " lanceolata
 Cypripedium spectabile
 Delphiniums, a great variety
 Dictamnus albus
 " caucasicus
 Eremurus, any kinds
 Galegas, of sorts
 Galtonia candicans
 Geranium grandiflorum
 " ibericum
 Geum chiloense Mrs. J.
 Bradshaw
 " Heldreichii superbum
 Gladiolus, early flowering
 sorts
 Gypsophila paniculata
 " " fl.-pl.
 Heleniums, of sorts
 Helianthus, all varieties
 Hemerocallis, all kinds
 Heuchera, in variety
 Incarvillea Delavayi
 " grandiflora
 Irises, of many kinds and
 varieties
 Kniphofias, of sorts
 Lathyrus latifolius The
 Pearl
 Liliums, of sorts
 Lupinus polyphyllus
 " " albus
 Lychnis chalconica
 " coronaria
 " Haageana
 " viscaria splendens
 plena
 Monarda didyma
 " " Cambridge
 Scarlet
 Montbretias, all
 Pæonies, a great gathering
 Papaver orientale, in variety
 Pentstemons, hybrids and
 species
 Phlox (herbaceous), in
 variety
 " alpine sorts and
 their allies
 Primula japonica
 " pulverulenta
 Pyrethrum, double vars.
 " single "
 Rodgersia esculæfolia
 " podophylla
 " pinnata
 " alba
 Rudbeckias, in variety
 Saxifraga Cotyledon, vars.
 Scabiosa caucasica
 " alba
 Sedum spectabile
 " " atropurpureum
 Spiræa, any kinds
 Statice latifolia
 Stokesia cyanea præcox
 Thalictrum aquilegifolium,
 vars.
 " Delavayi
 " dipterocarpum
 Thermopsis fabacea
 montana
 " Trollius, of sorts
 Veronica subsessilis
 Wahlenbergia vincæflora

HARDY FLOWERS THAT BLOOM IN AUTUMN.

N.B.—The groups marked * are bulbous rooted.

| | |
|------------------------------|---------------------------------|
| Aconitum Fischeri | Helianthus, any kinds |
| „ Wilsonii | Kniphofia, of sorts |
| Androsace lanuginosa | Lobelia cardinalis |
| Anemone japonica, all vars. | „ fulgens, Queen |
| Artemisia lactiflora | „ Victoria |
| Asclepias tuberosa | „ fulgens, Firefly |
| Aster acris | „ syphilitica, in variety |
| „ amellus, in variety | *Montbretias, generally |
| „ (Michaelmas Daisies), | Pentstemon (Chelone) barbata |
| „ in variety | „ Florists' varieties |
| Cerastostigma plumbaginoides | „ heterophyllus |
| *Colchicum, of sorts | Phlox (herbaceous) |
| *Crinum Powellii | Physalis Bunyardii |
| „ „ album | „ Franchetii |
| „ yemense | Platycodon grandiflorum |
| *Crocus medius | „ „ album |
| „ nudiflorus | „ Mariesii |
| „ speciosus | Polygonum affine |
| „ Aitchisoni | „ vacciniifolium |
| *Cyclamen europæum | Potentilla atrosanguinea |
| „ neapolitanum | „ Gibson's variety |
| *Gladiolus brenchleyensis | „ Tonguei |
| „ Childsi | *Sternbergia lutea angustifolia |
| „ gandavensis | „ „ splendens |
| „ hybrids | *Zauschneria californica |
| „ Lemoinei | „ „ splendens |
| „ Nanceanus | *Zephyranthes candida |
| Helenium, all | |

HARDY FLOWERS THAT BLOOM IN WINTER.

| | |
|-----------------------|-----------------------------|
| Anemone blanda | Helleborus niger Mdme. |
| Crocus Balansae | „ „ Fourcade |
| „ Imperatii | „ „ St. Brigid |
| „ Sieberi | Iris alata |
| Dondia epipactis | „ Heldreichi |
| Eranthis cilicica | „ Histrio |
| „ hyemalis | „ Histrioides major |
| Helleborus altifolius | „ reticulata |
| „ niger major | „ Tauri |
| „ „ angustifolius | „ unquiculata (stylosa), in |
| „ „ Scoticus | variety |

PLANTS FOR FORMING EDGINGS.

| | |
|------------------------------|---|
| Acantholimon glumaceum | Dianthus of sorts, including single and double Pinks |
| Acæna microphylla | Dicentra eximia |
| Achillea tomentosa | Ericas (Hardy Heaths) in variety. |
| „ umbellata | Festuca glauca |
| Ajuga reptans purpurea | Iberis in variety |
| Alyssum saxatile | Iris nudicaulis |
| Antennaria dioica tomentosa | Phlox frondosa |
| Arabis albida fl.-pl. | „ subulata, vars. |
| „ „ variegata | Saxifraga, all the mossy sorts make perfect edgings |
| Armerias, all | Silene alpestris |
| Campanula cæspitosa | „ maritima plena |
| „ garganica, in variety | Thalictrum minus |
| „ G. F. Wilson | Thymus lanuginosus |
| „ muralis | „ serpyllum albus |
| „ pulla | „ „ coccineum |
| „ pusilla | Veronica incana |
| Cerastium tomentosum | „ saxatilis |
| Coronilla varia | „ Teucrium var. dubia |
| „ iberica | Viola cornuta, in variety |
| Crucianella stylosa vars. | |
| Dactylis glomerata variegata | |

HARDY PLANTS FOR THE SHADY BORDER.

| | |
|--------------------------------|---|
| Anemone Hepatica, in variety | Galanthus (Snowdrop) |
| „ japonica, in vars. | Helleborus niger, all vars. |
| Aquilegia, in variety | „ orientalis, all vars. |
| Asperula odorata | Heuchera, all vars. |
| Astrantia major | Iris, all the "Flag" section |
| Campanula carpatica, all vars. | „ lævigata, all |
| „ persicifolia, all vars. | „ orientalis |
| „ tall varieties, generally | „ sibirica |
| Corydalis nobilis | Lilium, all the vigorous grow- ing sorts |
| Dentarias, of sorts | Lysimachia |
| Epimediums, of sorts | Lythrum |
| Fritillarias | Monarda |
| | Myosotis, in variety |

| | |
|---------------------------|-------------------------|
| Narcissus poeticus, vars. | Thalictrum minus |
| Omphalodes verna | „ adiantifolium |
| | „ Delavayi |
| Saxifraga cordifolia | „ dipterocarpum |
| „ „ purpurea | Trollius, of sorts |
| „ crassifolia | Trillium grandiflorum |
| „ ligulata speciosa | |
| „ granulata plena | Violas (Tufted Pansies) |

HARDY PLANTS FOR SUNNY BORDERS.

| | |
|---------------------------|----------------------------|
| Achillea alpina | Erigerons, of sorts |
| „ Eupatorium | Eryngiums, several kinds |
| „ mongolica | |
| „ Ptarmica plena | Gaillardias |
| „ „ Perry's White | Galegas, of sorts |
| Aconitum, any vars. | Geraniums |
| Adonis, all vars. | Gerbera Jamesoni (where |
| Alstromeria aurantiaca | hardy) |
| Anchusa, in variety | |
| Anemone alpina | Helenium, in vars. |
| „ pulsatilla | Helianthus, in vars. |
| „ sylvestris grandi- | Hemerocallis, in vars. |
| flora | Hesperis, in vars. |
| Anthericum, any | Heucheras, in vars. |
| Aquilegia, all | |
| Asclepias tuberosa | Iberis, in vars. |
| Asters, a great variety | Iris, all the "Flag" tribe |
| Aubrietias, any | „ gigantea |
| | „ English and Spanish |
| Campanula carpatica vars. | |
| „ pyramidalis, vars. | Linum flavum |
| „ punctata | Lupinus, of sorts |
| „ glomerata dahur- | Lychnis, of sorts |
| ica | |
| „ Hendersoni | Montbretias |
| „ Hillside Gem | |
| „ Van Houttei | Pæonies |
| Carnations of sorts | Perennial Poppy |
| Chrysanthemum maximum, | Pentstemon, of sorts |
| vars. | Phlox, of sorts |
| Coreopsis, of sorts | Platycodon grandiflorum |
| | Potentillas, all |
| Delphiniums, in variety | Pyrethrums, in variety |
| Doronicums, of sorts | |
| Echinops, in variety | Rudbeckias, in variety |
| | Scabiosa, in variety |

A SELECTION OF ORNAMENTAL PLANTS FOR PICTURESQUE EFFECTS.

Those genera marked with an asterisk (*) are effective also as
flowering plants.

- | | |
|--|---|
| <p>Acanthus, any vars. *Anemone japonica, in var. Aralia edulis " spinosa *Artemisia lactiflora Arundo Donax vars. " conspicua *Astilbe Davidii " rivularis " " gigantea Bambusa, in variety *Bocconia cordata " microcarpa *Buphthalmum speciosum *Centaurea Babylonica " glastifolia " macrocephala *Cortaderia (Gynerium) ar- gentea *Crambe cordifolia *Eremurus himalaicus * " robustus " " Elwesiana *Eryngium amethystinum " giganteum " Oliverianum " pandanifolium " serra, not hardy " in all localities Ferula, in variety Funkia, in variety Gunnera scabra " manicata *Helianthus latiflorus " Maximillianus " orgyalis " sparsifolius *Hemerocallis fulva " Kwanso, in " variety " disticha</p> | <p>*Heracleum giganteum " mantegazzianum *Lilium giganteum *Onopordon acanthium " bracteatum " polycephalum *Phytolacca decandra Polygonum cuspidatum " cymosum " sachalinense *Rheum Emodi " palmatum Tanghu- ticum " palmatum rubri- florum Saxifraga peltata *Senecio Clivorum " japonica syn. Ery- throchaeta pal- matifida " Ledebouri " Ligularia " macrophyllus " Veitchianus " Wilsonianus " Silphiums, in variety *Spiraea aruncus " gigantea " " rosea ele- gans *Thalictrum flavum " glaucum *Tritomas (Kniphofias), in vars. *Veratrum album " nigrum " viride *Verbascum, in variety *Yuccas, of sorts</p> |
|--|---|

HARDY FLOWERS FOR SHOW PURPOSES.

"P" indicates those best suited for showing in specimen pans ;

"C" those better suited for exhibition in the cut state.

| | |
|---|------------------------------------|
| Achillea, dwarf and silvery leaved (P) | Hutchinsia (Noccaea) alpina (P) |
| „ taller growing sorts (C) | Hypericums, dwarf (P) |
| Alyssum saxatile (P) | Iberis, of sorts (P) |
| „ montanum (P) | Iris, of many kinds (C & P) |
| Amaryllis Belladonna (C) | Kniphofia (C) |
| Anemone, dwarf tuberous kinds (P) | Leucojum vernum (P) |
| „ tall sorts (C) | Liliums, generally (C & P) |
| Aquilegia (C) | Linum flavum (P) |
| Armeria cephalotes rubra (C & P) | Lychnis, generally (C) |
| Asclepias tuberosa (C) | Lysimachia Henryi (P) |
| Aubrietia, any (P) | Monarda (C) |
| Brodiaea coccinea (C & P) | Montbretia (C) |
| Campanula, dwarf sorts (P) | Muscaria (P) |
| „ tall flowers (C) | Narcissus (C & P) |
| Coreopsis (C) | Ourisia coccinea (P) |
| Crinum (C) | Pæonia (C & P) |
| Cyclamen (P) | Phlox, alpine sorts (P) |
| Cypripedium (P) | „ herbaceous (C) |
| Dianthus (P) | Pinguicula grandiflora (P) |
| Dicentra eximia (P) | Platycodon grandiflorum (P) |
| „ spectabilis (P) | „ Mariesii (P) |
| Dodecatheons (P) | Polygonum vacciniifolium (P) |
| Draba azoides (P) | Primula, in variety (P) |
| Edraianthus (P) | Puschkinia scilloides (P) |
| Epimediums (P) | Pyrethrums (C) |
| Eryngium (C) | Rudbeckia (C) |
| Fritillaria imperialis (C) | Saxifraga, a great host (P) |
| „ meleagris (P) | Sedum, of sorts (P) |
| Gaillardias (C) | Statice latifolia (C) |
| Gentiana acaulis (P) | Trillium (P) |
| Helleborus, all sorts (P) | Trollius (C) |
| | Tulipa (C) |
| | Violas (P) |

A SELECTION OF HERBACEOUS AND ALPINE PLANTS THAT MAY BE RAISED FROM SEEDS.

| | | |
|---------------|---------------------------|-------------|
| Acanthus | Erigeron | Monarda |
| Achillea | Erinus | Morina |
| Aconitum | Erodium | Œnothera |
| Æthionema | Eryngium | Ononis |
| Alyssum | Euphorbia | Papaver |
| Anchusa | Fritillaria | Pentstemon |
| Anemone | Gaillardia | Phlox |
| Antirrhinum | Galega | Physostegia |
| Aquilegia | Geranium | Platycodon |
| Armeria | Geum | Polemonium |
| Aster | Gypsophila | Potentilla |
| Aubrietia | Helenium | Primula |
| Baptisia | Heuchera | Pyrethrum |
| Betonica | Hypericum | Rudbeckia |
| Brodiaea | Iberis | Saxifraga |
| Campanula | Inula | Scabiosa |
| Chelone | Iris | Sedum |
| Chrysanthemum | Isopyrum | Silene |
| Coreopsis | Lathyrus | Spiræa |
| Coronilla | Liatris | Statice |
| Corydalis | Lilium | Thermopsis |
| Delphinium | Linum | Trollius |
| Dianthus | Lobelia (her- baceous) | Tropæolum |
| Draba | Lupinus | Tunica |
| Dracocephalum | Lychnis | Verbascum |
| Echinacea | | Viola |
| Echinops | | Zauschneria |

A SELECTION OF MOISTURE-LOVING PLANTS.

| | |
|-----------------------|--------------------|
| Astilbe, of sorts | Dentaria |
| Butomus umbellatus | Epilobium |
| Caltha, of sorts | Ficaria |
| Camassia esculenta | Gentiana Andrewsii |
| Chrysobactron Hookeri | „ Pneumonanthe |
| Crinums, all | „ Gunnera scabra |
| Cypripedium pubescens | „ „ manicata |
| „ spectabile | |

Hellonias

Iris aurea

,, graminea

,, Monnieri

,, ochroleuca

,, sibirica

Leucojum æstivum

Lilium canadense, vars.

,, paradalinum vars.

,, superbum

Linnæa borealis

Lobelias (tall growers)

Lysimachia

Lythrum

Narcissus poeticus, vars., all

,, Emperor

,, Empress

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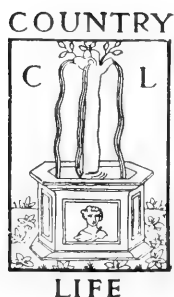
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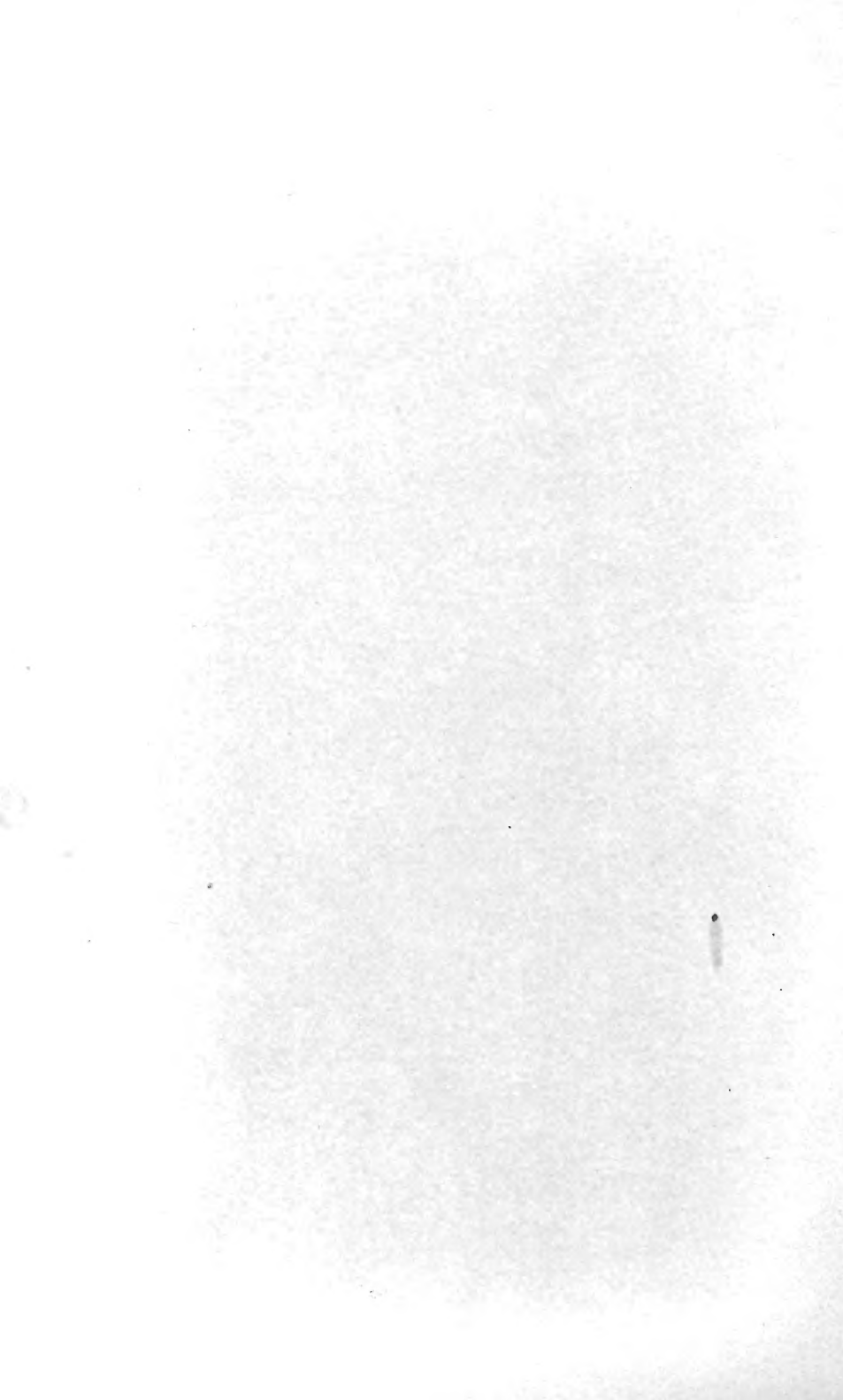
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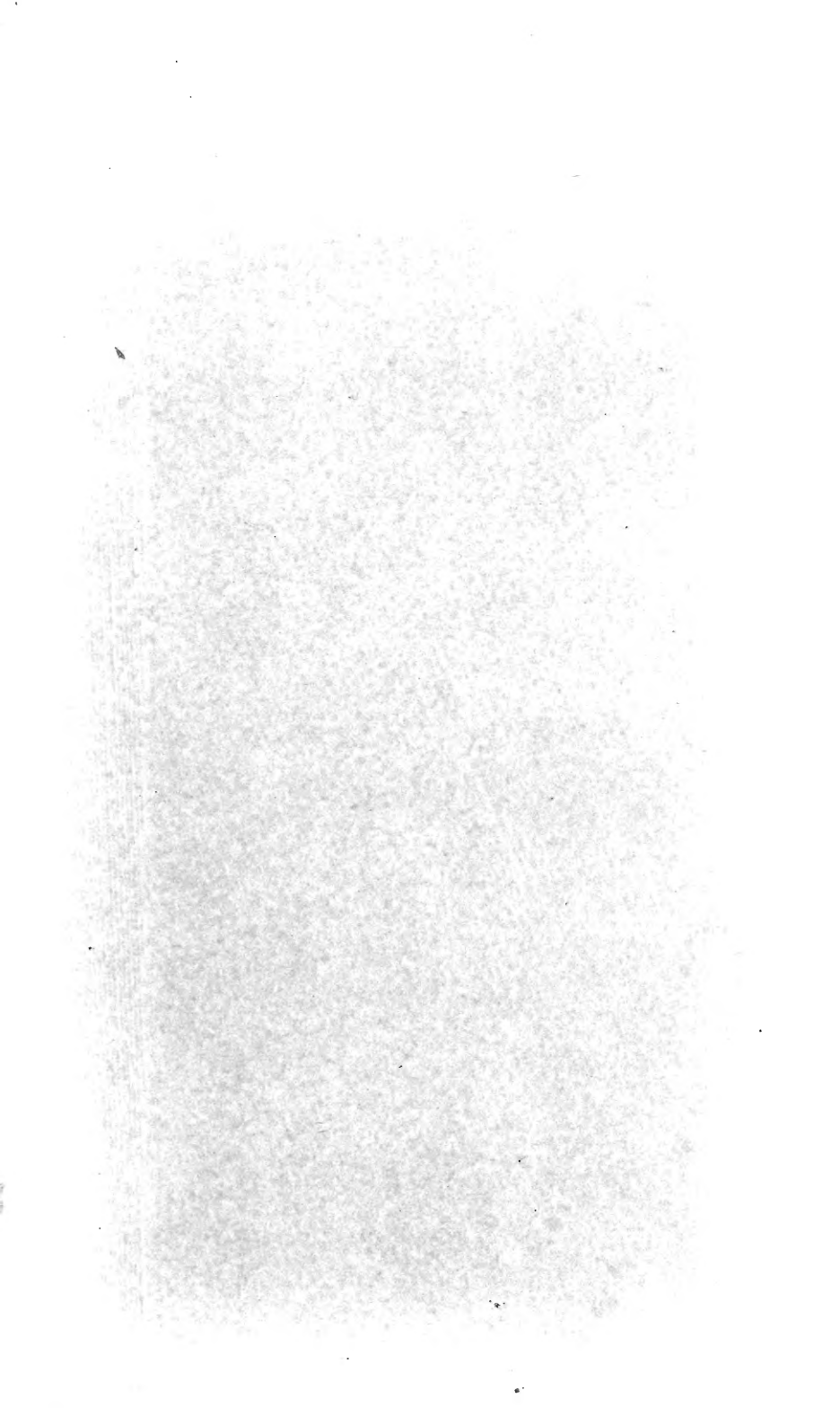
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